

CORPS OFFENSIVE OPERATIONS AGAINST A CITY

A thesis presented to the Faculty of the U. S. Army
Command and General Staff College in partial
fulfillment of the requirements of the
degree

MASTER OF MILITARY ART AND SCIENCE

by
EDWARD M. PIERCE, Major, USA

Fort Leavenworth, Kansas
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13. ABSTRACT (Maximum 200 Words) The purpose of this thesis is to develop a doctrine for offensive operations by a corps against cities. Source material is both historical and doctrinal in nature. Historical examples are taken from World War II campaigns in France, Germany, Russia, and the Philippine Islands. The doctrine proposed highlights the fact that fighting in cities should be avoided if possible. If a city is to be neutralized, nuclear, chemical, or biological weapons are the most economical means. Considerations for a ground assault are included. The corps normally has sufficient combat power to seize all but the largest cities with conventional weapons. The corps should place helicopters, combat engineer vehicles, and medium artillery in direct support of assault units or attached to them.				
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INTRODUCTION

The purpose of this thesis is to develop a doctrine for offensive operations by a corps against cities. Source material is both historical and doctrinal in nature.

The city is important to the modern army as a source of personnel and materiel. The city often has tactical importance as a communication center. A review of World War II field orders reveals that cities were often designated as objectives for major elements of the corps. Since the current trend in the world is toward more and larger cities, it is logical to expect that cities will play an important role in future wars.

The historical examples cited in this study are taken from World War II campaigns in France, Germany, Russia, and the Philippine Islands. Documentation of U.S. Army operations was found to be excellent, but documentation of Soviet and German operations appeared to be less accurate, and less reliable. The U.S. Army doctrine contained in this paper is a consolidation of material contained in U.S. Army field manuals and U.S. Army service school instructional material.

During World War II, the corps had sufficient forces to seize most cities, but the ground attack on a major population center with a hostile population required an army or army group. Corps headquarters planned and conducted eleven of the fourteen attacks described in the historical examples. Army or army group headquarters planned and directed the attacks on Stalingrad, Vitebsk, and Berlin. The examples are divided into four

categories: unfortified cities during mobile warfare, fortified cities during mobile warfare, cities as part of a fortified line, and the megalopolis or supercity.

Unfortified Cities During Mobile Warfare

The battles of Le Mans, Koblenz, Yuhnov, and Bobruisk are included in this category. Each of these cities fell within two or three days. Each plan of attack included an isolating force, and the attacker usually had a minimum of three to one superiority of combat units.

Fortified Cities During Mobile Warfare

The battles of Metz, Kharkov, and Vitebsk are in this category. The defensive areas of Metz and Vitebsk were used as anchor points during German efforts to stabilize their defensive lines in 1944. Both defenses successfully withstood the initial attempts to take them, and both cities fell relatively quickly after coordinated attacks reduced the surrounding fortifications and isolated the garrisons. Kharkov is an example in which the defending garrison was turned out of its positions by the threat of an isolating attack.

Cities as Part of a Fortified Line

The battles of Cherbourg, Brest, and Aachen are cited. The port facilities of Cherbourg and Brest were essential to the Allied logistical planners. Both ports were protected by a defensive line which had to be penetrated before the port could be seized. The Siegfried Line defenses had to be penetrated before Aachen could be isolated. In each of these attacks, the penetration of the defensive line was the most difficult and time consuming phase. The port cities fell within ten days of the date

that the defensive line was penetrated, and Aachen fell shortly after it was effectively isolated.

The Megalopolis

The battles for the "supercities" of Paris, Manila, Stalingrad, and Berlin are included in this chapter. After U.S. forces had crossed the Seine River both north and south of Paris and threatened to isolate the Paris garrison, French underground forces seized control of large sections of the city. The U.S. 5th Corps, with the 2d French Armored Division attached, arrived in time to assist in clearing the city. In the Pacific Theater, the U.S. 14th Corps required nearly a month to reduce the static defensive positions in Manila, which were manned by sixteen thousand hastily organized defenders. The Stalingrad and Berlin battles were conducted by army or army group headquarters, and are merely summarized in this study.

Doctrine

The lessons learned from the historical examples are examined in the light of current U.S. Army doctrine and instructional material from The Infantry School and the U.S. Army Command and General Staff College. Available Soviet and German doctrines are commented upon when they differ with U.S. doctrine. The conclusions are presented as a proposed doctrine which is a synthesis of lessons learned from the study. Separate paragraphs deal with the decision, the estimate, plans and preparations, and the conduct of the attack.

Conclusions

The doctrine which is proposed in this paper highlights the fact that fighting in cities should be avoided if at all possible. If a city is to

be neutralized, nuclear, chemical, or biological weapons are the most economical means of accomplishing the mission. If a ground assault is required, the following should be considered:

Size of force required to seize a strongly defended city.

Necessity to isolate the city and defeat relief attacks.

Selection of key terrain and objectives within the city.

Influence of paramilitary forces and a hostile population.

Requirement for rapid collection and dissemination of intelligence and aerial photography.

In addition to the above, the conclusion is reached that the attack of a city should either turn the defending force out of its prepared position or isolate and destroy him. Destruction is accomplished by (1) isolating the defending force, (2) restricting its ability to move and react, and (3) penetrating its positions and isolating and destroying its strongpoints.

The corps normally has sufficient combat power to seize all but the largest cities with conventional weapons. The corps should place helicopters, combat engineer vehicles, and medium artillery in direct support of assault units or attached to them.

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INTRODUCTION

Many new cities developed during the industrial revolution of the late nineteenth and early twentieth centuries. Nations blessed with a favorable environment and resources expanded their production to become world powers. Wars were fought for the possession of industrial areas and population centers, and revolutionaries discovered they could paralyze a government by seizing its major population centers.¹ More recently, national planners decided that population centers were a necessary preliminary to industrialization and set out to build such centers with voluntary and forced migration.²

Military planners soon realized that industrialization increased a nation's military strength. The modern army integrated machines and men into a war machine with tremendous capabilities. Despite its strength, the new army had weaknesses, for it was dependent upon its industrial and population centers for personnel, equipment, and logistical support. When the modern army moved from its industrial base, it had to follow established communication lines or build new ones at great expense and effort. Since cities were the hubs of these communication lines, their

¹ Lenin's orders to seize Petersburg and Moscow, the 19th Century revolutions in France, and the current series of military coups are examples of the revolutionaries' use of cities to seize power.

² The Soviet efforts to build population centers behind the Urals and in the Ukraine, and the Yugoslav efforts to develop such cities as Belgrade, Prilep, Titograd, and Pribor, are examples of Communist application of this doctrine.

possession sometimes provided a tactical advantage over the enemy. The strategic value of the city lay in its communications facilities, industrial areas, labor pool, and political importance. Its tactical value was its communications, manpower, or position astride an avenue of approach.

The list of cities which were designated as objectives in corps field orders (operation orders) during World War II is long. The examples cited in this paper are only a few of the better documented and more important battles which were fought in or around a city. With the population explosion phenomena adding to the number and size of cities continuously, combat in cities can be anticipated even more frequently in the future. Since the current U.S. Army Manual for combat in cities is written for regimental and lower units and the applicable portion of U.S. Army field service regulations is sketchy, this study is intended to consolidate and supplement the current tactical doctrine for corps planners.³ The study concentrates on the corps level of operations.

In most cases during U.S. operations in World War II when the corps was assigned the mission to seize a city, the corps had sufficient forces available to defeat the enemy on the terrain surrounding the city and isolate the defenders. Once the city was isolated the defenders had to choose between continued defense and ultimate loss of the defending force. Chapters I and II of Part I are examples in which the corps commander had freedom of action and selected to develop the battle in this manner.

Chapters III and IV of Part I are studies of battles in which the

³Field Manual 31-50, Combat in Fortified Areas and Towns (Washington 25, D.C.: U.S. Government Printing Office, 1952), and Field Manual 100-5, Field Service Regulations, Operations (Washington 25, D.C.: U.S. Government Printing Office, 1962).

corps commander's ability to maneuver was restricted by terrain and enemy dispositions, or because a combination of enemy defenses, population, and physical dimensions of the city made it too large for one corps to capture.

Part II of this paper is a study of pertinent United States and foreign army doctrine. It is organized into functional chapters dealing with the elements of the commander's decision, planning, conduct of the battle, and organization.

Part III of the paper is a synthesis of the previous material in the form of a "proposed doctrine." The ideas are not new, but they do provide specific guidance for corps level planners with emphasis on those items which caused the most difficulty during World War II operations. Modern developments have been considered in the formulation of this doctrine.

PART I

HISTORICAL EXAMPLES

The historical examples used in this study occurred during World War II in France, Germany, Russia and the Philippine Islands. Four categories of battles were analyzed: the unfortified city in mobile warfare, the fortified and well defended city in mobile warfare, the city as part of a fortified line, and the megalopolis or supercity. A city for the purpose of this discussion is defined as a major population center which is so situated and of such size that it constitutes a suitable objective for a corps attack.

A megalopolis is simply a very large city or series of adjoining cities. Paris, with a population of two and one-half million, and Manila, population one million, are examples which were seized by a single corps. The battles for the Ruhr, Berlin, Budapest, and Stalingrad are examples in which larger military formations attacked a megalopolis. Detailed treatment of these battles is beyond the scope of this study.

The first category of city to be discussed is of moderate size, is not fortified, and is not defended in strength. Attacks on this type of city occurred most often after breakthroughs, and were conducted to hinder the enemy's withdrawal and prevent him from re-establishing a coordinated defense. The battles of Le Mans, Koblenz, Yuhnov, and Bobruisk are examples of this type of attack.

A more difficult problem is presented by the second category of city,

one which has been fortified and is defended in strength. The battles of Metz, Kharkov, and Vitebsk are reviewed in Chapter II as examples of this type of attack. The battle of Metz is developed in detail from corps orders and after action reports, and corps and division supporting documents. Accounts of the Soviet-German campaigns of World War II contain many examples of army and army group operations conducted around such fortress cities.

The third category of attack occurs when the attacker is not able to assault the flanks of a fortified and defended city. This may occur if the city is located within a fortified line or because the flanks are protected by obstacles. In this case, the defender is able to concentrate his defenses so that the attack must penetrate a defensive line before it can assault the city proper. The battles of Cherbourg, Brest, and Aachen are reviewed in Chapter III. The discussion is documented with after action reports, field orders, and special reports which were prepared by the participating units immediately after the attacks.

The fourth category of encounter is best described as the attack of a metropolitan area or megalopolis. The battles of Paris and Manila are examples of this type of action. The corps commander's freedom of action was limited by political and strategic considerations in both cases, but especially so in the case of Paris. Fifth Corps records of the battle of Paris included G2 and G3 journals and after action reports. Documentation of the battle of Manila is good, and consists of field orders, after action reports, and special studies made immediately after the battle.

Certain general conclusions can be drawn from the study of these historical examples. First, combat in cities seldom results in a quick and decisive victory, and often requires large commitments of combat power for weeks or months. On the other hand, the limited fields of fire and loss

of mobility within a city usually place the defender at a disadvantage once the flanks of a city are exposed. For this reason, the defender will usually attempt to establish a system of strongpoints on the best defensive terrain around the perimeter of the city where he can obtain better fields of fire and observation. Outlying towns often furnish good positions for strongpoints from which the main avenues of approach into the city can be blocked. Elements of the attacking corps usually isolate the city and defeat reinforcement and breakout attempts while other elements of the corps defeat the enemy trapped within the city.

The defender usually suffers much heavier losses than the attacker during the fight for an isolated city even if the defending garrison succeeds in breaking out.

It should be noted here that all of these historical examples occurred prior to the development of nuclear weapons and under non-chemical and non-biological conditions of warfare.

CHAPTER I

UNFORTIFIED CITIES DURING MOBILE WARFARE

The mobile warfare which accompanied the Allied exploitation across France in 1944 furnished many examples of the attack of unfortified cities. Only one of these battles will be described in this chapter. The capture of Le Mans frustrated a German plan to defend in the Laval-Mayenne-Le Mans area and placed the Allied armies in position to encircle major German forces. The capture of Chartres and Orleans which opened the gateway to Paris is discussed in Chapter IV. The second example of this chapter, Koblenz, Germany, was an enemy city of sixty-six thousand people which was cleared by one regiment late in the war. The final two examples in this chapter are taken from the German-Soviet front. The battle of Yelkhov occurred early in the Soviet counter offensives, and the battle of Bobruisk shows how a river flotilla supported an exploitation which culminated in the capture of a Russian city of eighty-four thousand.

Le Mans

The breakout from the Normandy peninsula put U.S. forces in position to encircle major elements of the German Army Group B and to prevent it from organizing a defensive line. Third Army directed 15th Corps to advance east and seize the towns of Mayenne, Laval, and Le Mans (Map I). Seizure of these communications centers would place the corps on the rear

of German forces deployed in the Normandy area.¹ Speed was essential since the German LXXXI Corps was attempting to establish a workable defense in this area.²

When the fall of Mayenne and Laval appeared certain, General Patton's Third Army issued oral orders to 15th Corps to continue the attack to seize Le Mans. Major General Wade H. Haislip, commander of 15th Corps, noted that this mission required the corps to advance fifty miles to the east, force a river, and seize a city of seventy-five thousand people. Both the corps flanks would be open during this advance.³ The initial plan had the 79th and 90th Infantry Divisions advancing abreast to seize the city while the 5th Armored Division attacked east and protected the right flank.

The 106th Cavalry Squadron entered the city on the afternoon of 7 August, but was forced to withdraw by German counterattacks. The 79th Division's 313th Infantry Regiment entered the city outskirts at 072100, but was not able to seize the city.⁴

When these initial assaults failed, General Haislip decided to attack the city "from all sides simultaneously."⁵ The corps field order divided the city into two sectors and directed assaults from the southeast,

¹Martin Blumenson, United States Army in World War II, European Theater of Operations, Vol: Breakout and Pursuit (Washington 25, D.C.: U.S. Government Printing Office, 1963), pp. 425-440.

²Ibid., p. 433.

³U.S.A., XV Corps, "Report After Combat, 31 July 1944 to 31 August 1944" (APO 436: 28 September 1944), p. 3.

⁴Ibid.

⁵Wade H. Haislip, "Corps Operations" (taped speech) (Fort Leavenworth, Kansas: U.S.A. Command and General Staff College, 18 April 1952).

west and northwest. The 79th Division was assigned the southern half of the city, the 90th Division was assigned the northern half of the city, and the 5th Armored Division was to seize high ground which effectively isolated the city from the east and northeast.⁷

On the next day all units fought their way into the city and secured their objectives after considerable street fighting, and the city was cleared by dark on 8 August.⁸

The fall of Le Mans and subsequent advance north toward Alençon put 15th Corps on the rear of German Army Group B and in position to attempt the closing of the Falaise pocket. The attack of Le Mans was a complete success. The southern half of the LXXXI Corps defensive line was destroyed and 15th Corps was free to continue operations against the flank of the Falaise pocket with its communications lines secure and unhindered.⁹

The success can be attributed to the speed of advance on Le Mans, a weak defense, and an overwhelming attack launched simultaneously from the front and flanks of the city. The armored division attack to isolate the defenders would have been necessary had the defender elected to fight his way out or to reinforce.

The corps complained of poor communications with higher headquarters, lack of aerial photography, and limited map coverage during the period of this attack.¹⁰

⁷XV Corps, pp. 3 and 4.

⁸Ibid., p. 4.

⁹Blumenson, p. 443.

¹⁰XV Corps, pp. 13 and 14.

The battle of Le Mans is an example of current Soviet doctrine for the attack of a city. The Soviet doctrine is to use surprise and bold maneuver to strike for the heart of the city from the march formation. This attack is followed with simultaneous attacks on several sectors of the city if the initial attack fails.¹¹

Koblenz

Koblenz, Germany, is a city of sixty-six thousand people¹² located on the west bank of the Rhine River at its confluence with the Moselle. Lt. General Gerow, 4th Corps commander, had designated it as the objective for an attack through the West Wall on 8 September 1944, but General Hodges, First Army Commander, ordered the attack held up for one or two days to permit buildup of ammunition stocks.¹³

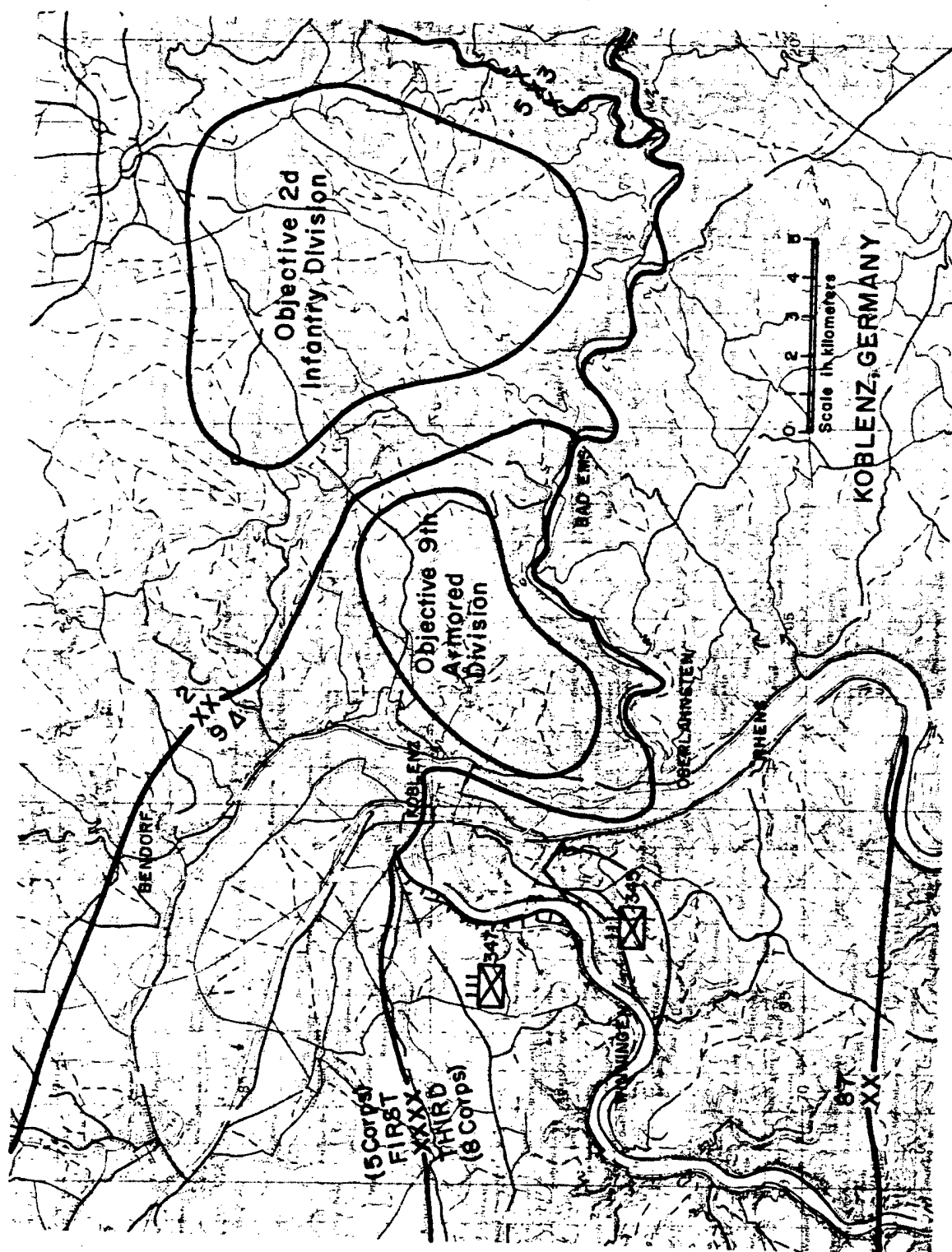
Five months later 8th Corps secured the city after the Allied forces had defeated a German strategic counterattack (the "Battle of the Bulge")¹⁴ and fought a costly and tedious battle to penetrate the West

¹¹U.S.A., Headquarters, Department of the Army, Pamphlet No. 30-50-1, Handbook on the Soviet Army (Washington 25, D.C.: U.S. Government Printing Office, 31 July 1958), p. 42.

¹²Based on 1950 census, Encyclopedia Britannica, Vol. 5, p. 900.

¹³The West Wall, or Siegfried Line, was a line of defenses along the German border which was prepared prior to World War II. The positions were neglected after the fall of France in 1940, and only reoccupied again in 1944 when the Allied armies threatened the German frontier. It is interesting to speculate on the changes in events which a successful breach of the West Wall in September of 1944 would have caused.

¹⁴The German high command committed their strategic reserve against U.S. forces in the Ardennes in December 1944 in an effort to destroy logistical installations and disrupt Allied war plans. The attack achieved tactical success and became known as the "Battle of the Bulge" because of the penetration which formed a bulge in the Allied lines. This penetration had to be reduced before the attack into Germany could be continued.



Map II. Eighth Corps attack on Koblenz, Germany

17 - 21 March 1945.¹⁵

¹⁵Edgar A. Wilkerson, V Corps Operations in the E.T.O. (publication date not listed), p. 409.

Wall. The action at Koblenz was influenced by the seizure of the Remagen Bridge which occurred thirty-four kilometers north of the city.

The U.S. 3d Corps captured the Remagen Bridge intact in March 1945 and established a bridgehead across the Rhine. The U.S. 5th Corps crossed the river behind 3d Corps and attacked south with the 9th Armored Division (Map II).¹⁶ While this action to the north threatened the German positions on the Rhine, Patton's Third Army directed 8th Corps to continue the attack and clear the west bank of the Rhine in its zone. The 87th Division was ordered to seize the city of Koblenz.¹⁷

The attack by the 9th Armored Division threatened the rear of the defenders west of the Rhine, but U.S. progress was slowed by difficult terrain and enemy resistance. The attack did draw off the best German forces from the defense of Koblenz, and forced the German high command to rely upon second rate forces, stiffened with elements of the 6th Schutzstaffel (Elite Guard) Mountain Division for this mission.

The attack continued along the east bank of the Rhine until the 26th of March, when the 9th Armored changed direction and attacked east to seize the city of Limburg.¹⁸

Meanwhile the 345th Infantry Regiment of the 87th Division attacked Koblenz from the south and seized one-third of the city on 17 March. On the 18th the remainder of the city was cleared except for a small pocket around Fort Constantine which was held by elements of the 6th Schutzstaffel Mountain

¹⁶Ibid., pp. 400-404.

¹⁷U.S.A., 8th Corps, "Field Order 15" (APO 308: March 1945), p. 1.

¹⁸Wilkerson, pp. 408 and 409.

Division. The city was considered cleared on 19 March.

The attack on Koblenz occurred later in the war when reinforced regiments were often able to clear large cities. Dortmund, population five hundred thousand, and Essen, population six hundred thousand, were cleared by reinforced regiments.¹⁹ The capture of these cities was probably facilitated by the German people's preference to surrender to Americans rather than be captured by Russians.²⁰

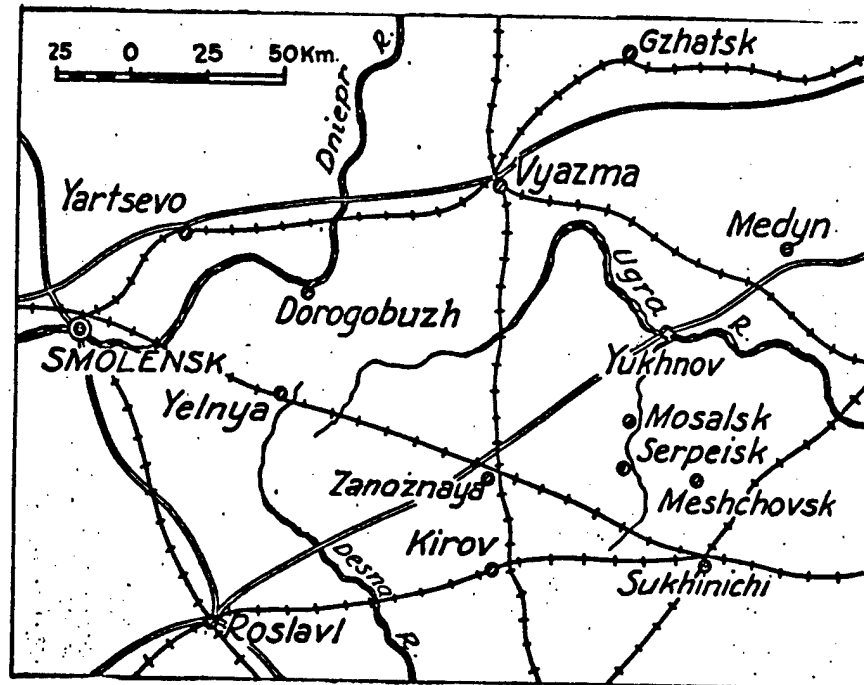
Yukhnov

Yukhnov is a town of two thousand which lies on the eastern approaches to Vyazma, a railway junction at the confluence of the Berba and Vyazma Rivers (Map III). The battle of Yukhnov was unimportant strategically, and is poorly documented. It is included here for several reasons. First, the account of the battle was published at a time when the Soviet Army was developing the tactics which would be so successful later on. The Soviets desperately needed victories, and, as is the habit in Soviet armies, an account of a successful assault was published to explain the approved tactic for the attack of a strongpoint. Thus, the battle of Yukhnov illustrates a phase in the development of Soviet doctrine for the attack of a city.

¹⁹Dortmund had a prewar population of five hundred thousand, but only an estimated one hundred thousand remained at the time of the 378th Infantry Regiment (Tast Force Twaddle) attack.

²⁰Contrast the civilian attitude in Koblenz and the Ruhr with the civilian resistance in Stalingrad and Berlin during World War II, in Prague in 1945, or in Budapest in 1956. It is not always easy for U.S. forces, for the 45th Infantry Division had considerable difficulty with fanatical civilians during the battle of Aschaffenburg in 1945.

Second, the German use of Yukhnov for the defense of Vyazma is an example of defense of a city by using small localities on the approaches as strong-points in order to gain a combination of good cover and fields of fire.



Third, the battle is the only example in this paper of a

Map III. Soviet Attack on Yukhnov.²¹
February and March 1942.

successful withdrawal from a defended locality.

The mission of the Soviet units was to seize Yukhnov and open the southeast flank of the Vyazma defenses. It included an order to systematically grind up enemy personnel and equipment. Yukhnov was the only town holding up the Soviet advance in the area.

The first day of the attack consisted of Soviet frontal assaults against a regiment which defended the approaches to the city.

The Soviets continued their attack the first night and seized a foothold in the city, but were driven out by enemy counterattacks. The

²¹"How the City of Yukhnov was Captured," Krasnaya Zvezda, 6 March 1942, (Translated by U.S.A. Command and General Staff College in Military Review, January 1943), p. 72.

next night a battalion cut the road being used by German reinforcements. This battalion attacked the city from the rear the next day while the attacks from the front continued. The Germans continued to hold the city as casualties mounted on both sides. After several days, a change of tactics was ordered.

The second phase of the battle began when the Soviets decided to bypass the city. By this time the Germans were sustaining their defense with strong fires from fortifications which were improved during the lulls in the battle. Their counterattack capability was exhausted.

After the town was bypassed, it could be attacked from all sides. After several days of such attacks, the town was entered and the enemy defeated in a series of short battles. The Germans had succeeded in withdrawing the major portion of their forces and successfully defended Vyazma during the Soviet winter offensive of 1942.²²

Bobruisk

Bobruisk, a city of eighty-four thousand, is located on the east bank of the Berezina River just north of the Pinsk Marshes on the site of an ancient fortress (Map IV). The population of this ancient trading center was forty per cent Jewish before the German Army arrived in 1941.

The only available account of the battle of Bobruisk was prepared by a naval officer who wrote the account to show how a river fleet was used to support ground forces. The account is better organized than the account of the battle of Yuhnov and appears to be an accurate description

²²Ibid., pp. 72 and 73.

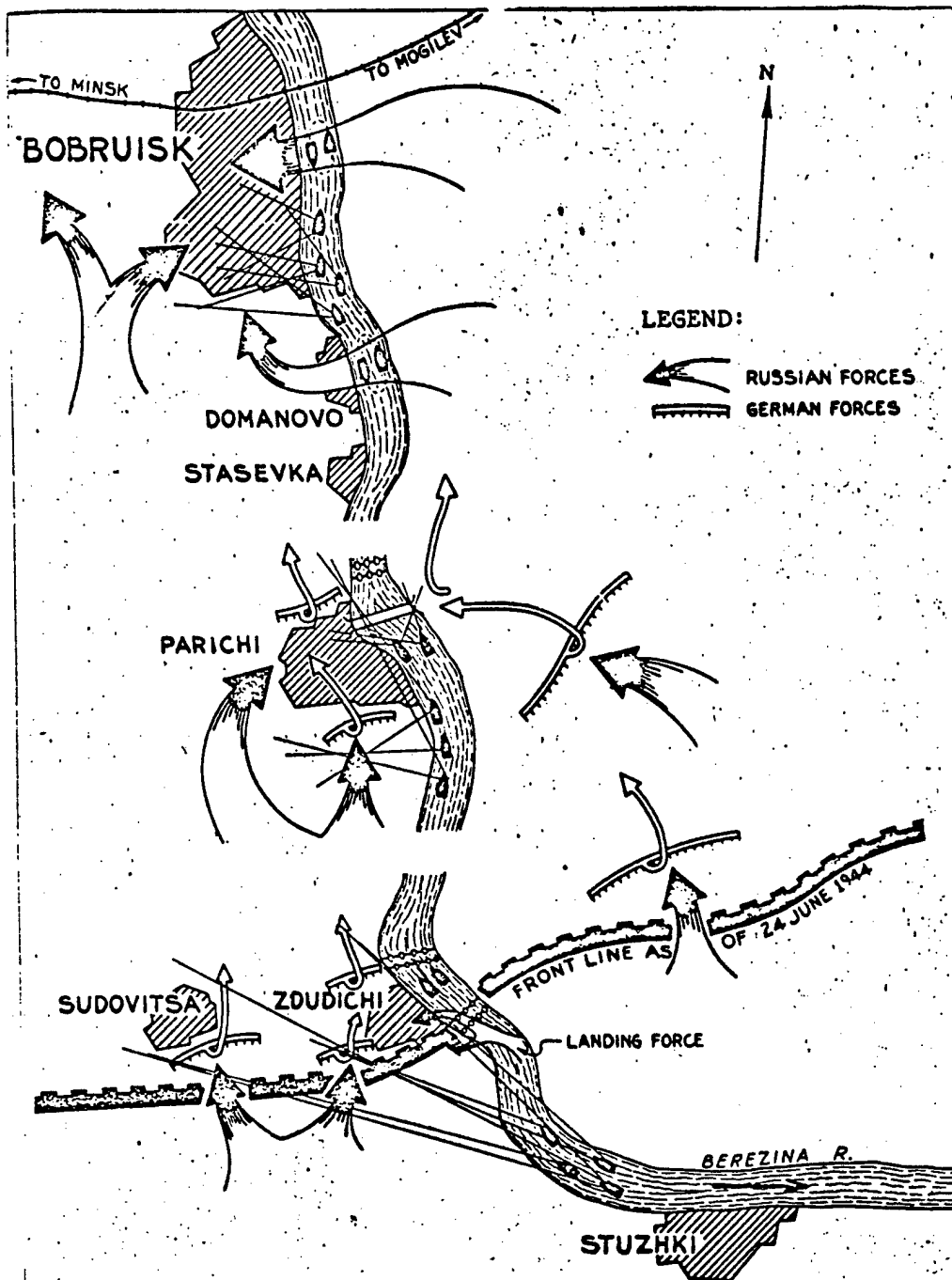
by a man who was in position to observe the entire action. The use of ships for fire support, reconnaissance, troop lift, and to deny the enemy movement across the river barrier was unusual but effective.

The Red Army units in this sector (Map IV) were given the following missions: on the west bank, to breach the German defense between Sudovitsa-Zdudichi and attack in the direction of Parichi; on the east bank, to break through and to support the general offensive along the east bank in the direction of Bobruisk.

There were three stages in the operation of the flotilla. The first was a landing operation with artillery support during the attack on Zdudichi. The second stage included the advance of the ships up the river, the destruction of the enemy crossing in the vicinity of Parichi, and support of the troops during their assault on this stronghold. The final stage included a reconnaissance in force of the city of Bobruisk, the transfer of the Red Army units from the left to the right bank of the river, and support of the storming of the city of Bobruisk.

The Germans attempted to withdraw from east bank and reinforce garrisons in the cities on the west bank during the battle. The flotilla succeeded in preventing this maneuver on the open river, but the Germans successfully crossed the river in an area protected by the guns of Bobruisk.

On the evening of 27 June, the ships participated in the artillery preparation preceding the assault of the city of Bobruisk. "The liquidation of the enemy forces was accomplished by splitting the enemy into two parts, one in the city and the other southeast of the city. Next the enemy was wedged in various sectors, split up, and equipment and material destroyed. The city was stormed and captured on 29 June."



Map IV. Soviet Attack on Bobruisk, June 1944.²³

²³"River Flotilla Operations on the Berezina," Commander V. Fedotov, Krasnyi Flot, 29 November 1944. (Translated by U.S.A. Command and General Staff College, Military Review, July 1945), pp. 112-115.

The flotilla twice penetrated the city limits under enemy fire on 28 June to obtain information but could not prevent the crossing of German troops from the east bank. On the 29th, the ships advanced along the flank of the troops to cover the advance. On the same day ships broke into the port, neutralized the enemy guns, and landed detachments of assault troops.

The attack plan of dividing the enemy, then destroying him by a continuous process of subdividing, is often found in Soviet battle accounts of World War II. It appears to have been the accepted doctrine for Soviet forces.²⁴

²⁴Ibid.

	<u>Time required</u>	<u>Relative Attacker</u>	<u>Combat Power Defender</u>	<u>Population</u>
<u>Le Mans</u>	2 days	2 inf., 1 armor divisions	Misc. elements, mostly LXXXI Corps troops	100,000

Remarks: The German LXXXI Corps never succeeded in establishing a cohesive defensive line because of the speed of the Allied attack. This is a good example of an attack from a column formation during an exploitation.

	<u>Time required</u>	<u>Relative Attacker</u>	<u>Combat Power Defender</u>	<u>Population</u>
<u>Koblenz</u>	3 days	2 inf. regt.	People's militia reinforced with small detach- ments of 6th SS Mtn. Div.	65,000; potentially hostile, pro- bably pacified

Remarks: Bulk of regular German forces withdrew to avoid isolation on the west bank of the Rhine River. One regiment cleared the city.

	<u>Time required</u>	<u>Relative Attacker</u>	<u>Combat Power Defender</u>	<u>Population</u>
<u>Yukhnov</u>	Over 1 week	Unknown	1 Regiment	2,000

Remarks: Yukhnov is a smaller locality located astride an avenue of approach to the important communication center of Vyazma. The development of a defensive position around Yukhnov illustrates the tactic of transforming a populated area into a defensive strongpoint. This tactic was used frequently during the war in Russia.

	<u>Time required</u>	<u>Relative Attacker</u>	<u>Combat Power Defender</u>	<u>Population</u>
<u>Bobruisk</u>	3 days	Elements of two combined arms armies.	Elements of German Ninth Army.	84,000 of unknown sentiments.

Remarks: Soviets were exploiting 150 miles behind original defensive line. Large elements of the German mobile forces probably withdrew while the Soviets were preoccupied with the Bobruisk forces.

CHAPTER II

FORTIFIED CITIES DURING MOBILE WARFARE

The battle of Russia has brought into practice many innovations in field tactics. The absence of a rigid front line, after the pattern of World War I, and the fluidity of both offense and defense have caused both sides to construct their defenses around strongly fortified points of resistance. Cities, towns and even small populated localities have been transformed into strong points of this type. They have been found capable of offering prolonged resistance to the advancing enemy, who, if unable to capture such a strong point by a frontal attack, proceeds to by-pass it and occupies the surrounding localities. . . .¹

The above quotation is an excellent introduction for the next category of attack. The battles of Yuhnov and Bobruisk could well be considered this type of battle, for the Germans had prepared defenses which they improved as the attack progressed, but the defenses of these two cities were not so well developed as those described in this chapter.

The three battles cited in this chapter are examples of battles to seize cities which were fortified in accordance with a well developed plan. The first, Metz, was seized by Patton's Third Army during its exploitation across France in 1944. Patton's forces failed in their first effort to crack the complex fortifications system, but succeeded in the second effort a month later. The capture of Metz defeated another German effort to establish a defensive line, ensured a penetration of the Maginot

¹"How the City of Yuhnov was Captured," Krsarya Zvezda, 6 March 1942 (Translated by U.S.A. Command and General Staff College, Military Review, 1 January 1943), pp. 72 and 73.

Line, and opened the way to the Saar River Valley.

The second example is an account of the battle of Kharkov in 1943, as told by a German military writer. The Germans were on the defensive as the battle opened, and had to withdraw from the city or be cut off. The Germans chose to retain their mobility rather than defend the city, and the Soviets failed to prevent their escape. Before the battle was over, the Germans regained Kharkov and decisively defeated a major Soviet force, probably elements of two combined arms armies.

The Soviets learned from their mistakes, however, and in the third example, the battle of Vitebsk in 1944, they effectively isolated and destroyed a sizeable German garrison.

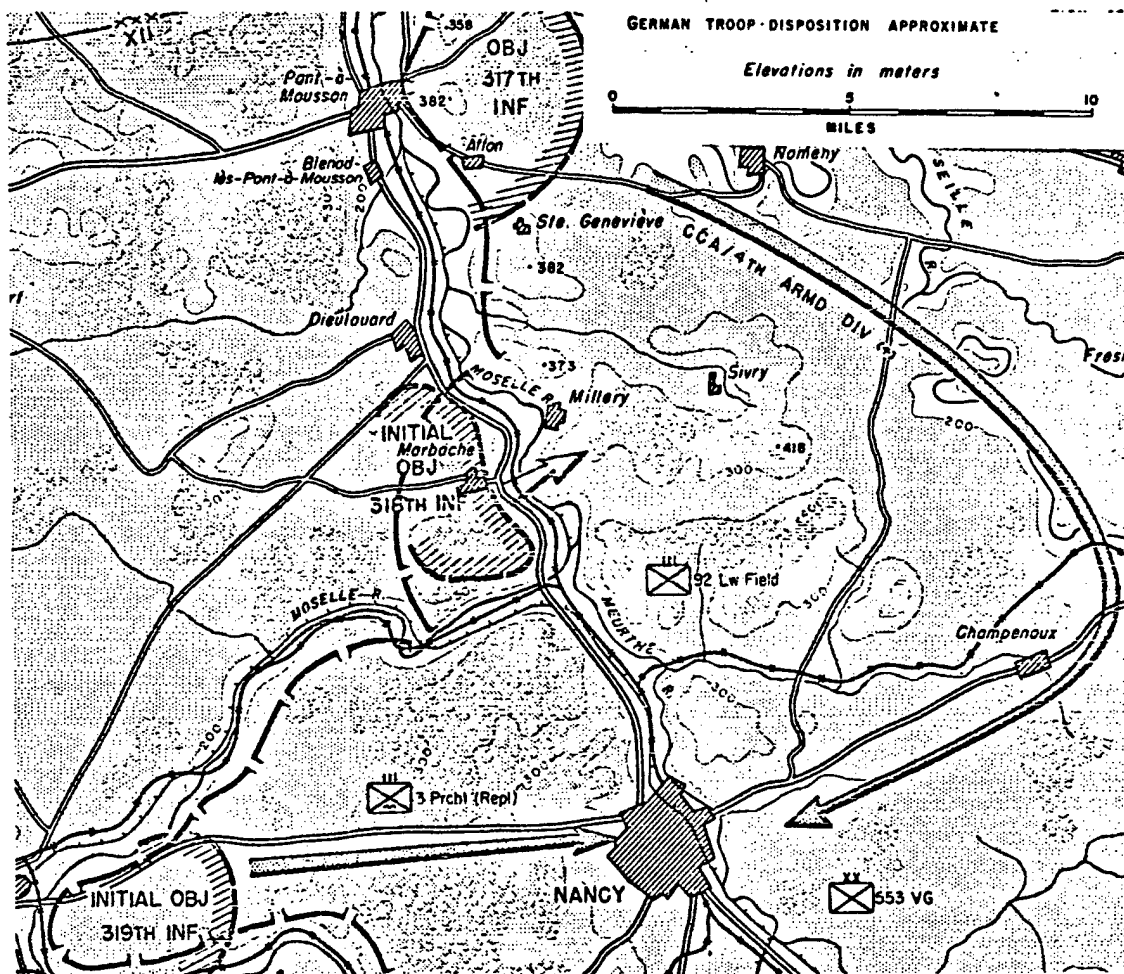
Metz

Major General Walton H. Walker's 20th Corps was riding high. Gasoline shortages stopped them for a short period after they crossed the Seine River, but by 6 September 1944 they were ready to roll east again. General Walker's guidance to his planners included instructions to drive through Metz and seize a bridgehead over the Rhine River in the vicinity of Mainz. At the same time, 12th Corps was to make concentric attacks on Nancy (Map V), a city of one hundred thousand located twenty-five miles south of Metz. The Germans were thought to be on the verge of collapse.

The 7th Armored and 5th and 90th Infantry Divisions were to attack across the Moselle River, with the main attack by the 7th Armored and 90th Infantry Divisions on the north of Metz.² The attack jumped off as planned on 6 September, but lack of progress in the north caused General

²U.S.A., XX Corps, "Field Order 10" (APO 340: 5 September 1944), pp. 1 and 2.

Walker to shift the weight of his attack to the 5th Infantry on the south of Metz by 14 September. This attack stalled also. The 7th Armored Division was reassigned to another corps on 20 September and the decision to cease the attack came on 10 October.³



Map V. 12th Corps plan for the attack on Nancy.⁴
September 1944

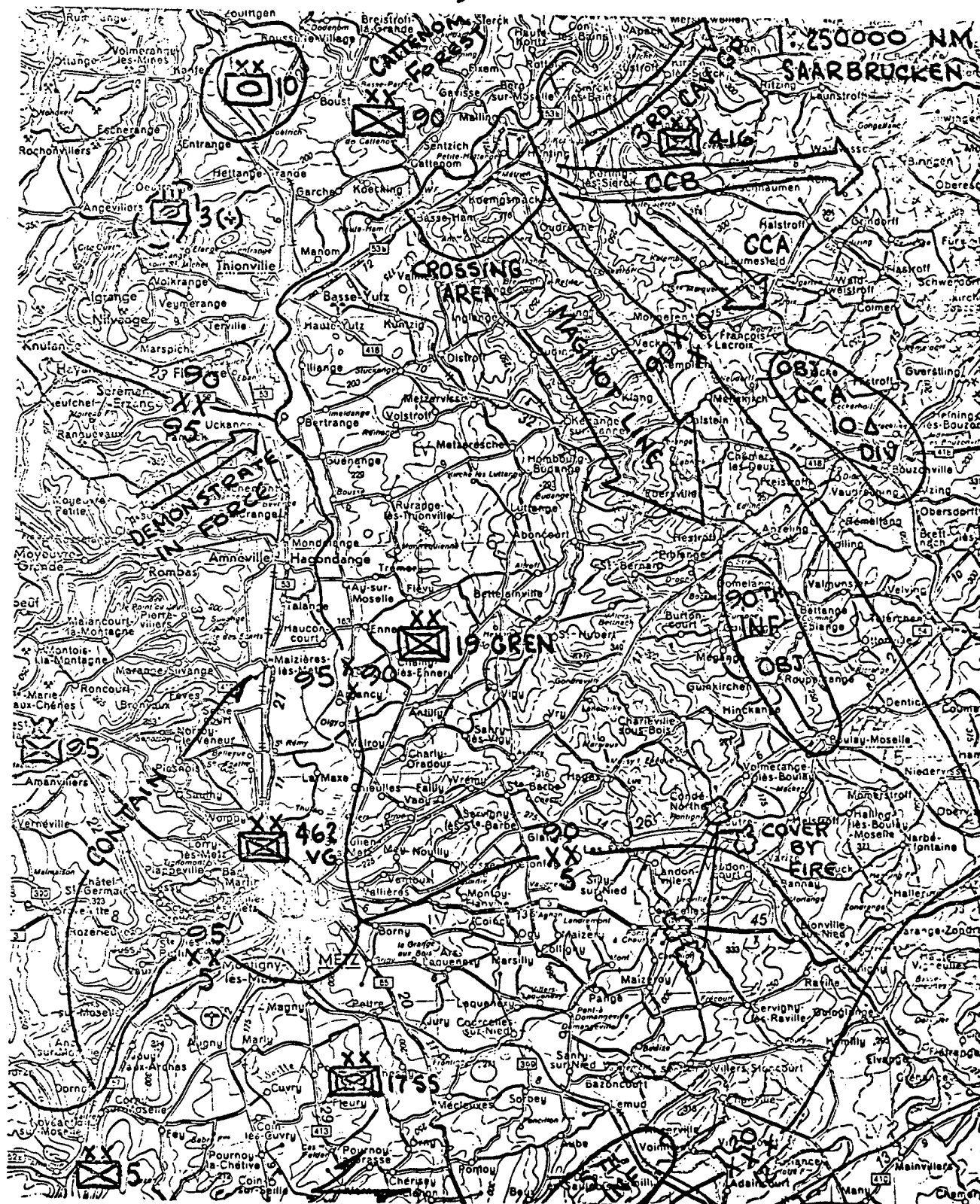
³U.S.A., XX Corps, "The Reduction of Fortress Metz" (XX Corps Operation Report, 1 Sep - 6 Dec 1944), (APO 340), pp. 1-6.

⁴H. M. Cole, United States Army in World War II, European Theater of Operations, Vol: The Lorraine Campaign (Washington 25, D. C.: U.S. Government Printing Office, 1950), pp. 57, 131, 157, and Map 8.

What was there about this fortress city of eighty-three thousand which had frustrated the efforts of three crack U.S. divisions for better than a month? The answer to that question lies in the difficult terrain and the man-made fortifications which augmented this natural barrier. The high banks of the Moselle River are complemented by steep wooded hills and ridges of the area. Two sizeable tributaries, the Nied and Seille Rivers, present additional problems for the attacker. The natural strength of the area was recognized by the 18th Century French, and they set about to encircle the city proper with a ring of forts. This ring was completed in 1866 during the time of Napoleon III. The forts, now called the inner ring, were considered inadequate by the Germans after they regained control of Metz in 1871 during the Franco-Prussian wars. They completed an outer ring of twenty-eight forts in 1912 which were about six miles from the center of the city. The inner ring of forts were designed for infantry use, but the Germans began converting them for artillery emplacements after they took control in 1940. The outer forts were designed as well-protected artillery positions. U.S. assault forces had actually been on top of the gun turrets of these forts during the unsuccessful attacks of early October, but they were not able to destroy them.

A third set of fortifications was involved in this battle, for the Maginot Line fortifications met the Moselle River about thirty kilometers north of Metz, at Fort Koenigsmacker. The Maginot Line passed some twenty kilometers to the east of Metz.

General Walker's staff perfected a plan to assault this fortress complex by the end of October. In the meantime, the troops had undergone extensive training to prepare themselves for the coming attack. The 10th Armored and 95th Infantry Divisions, both new and unseasoned, were assigned



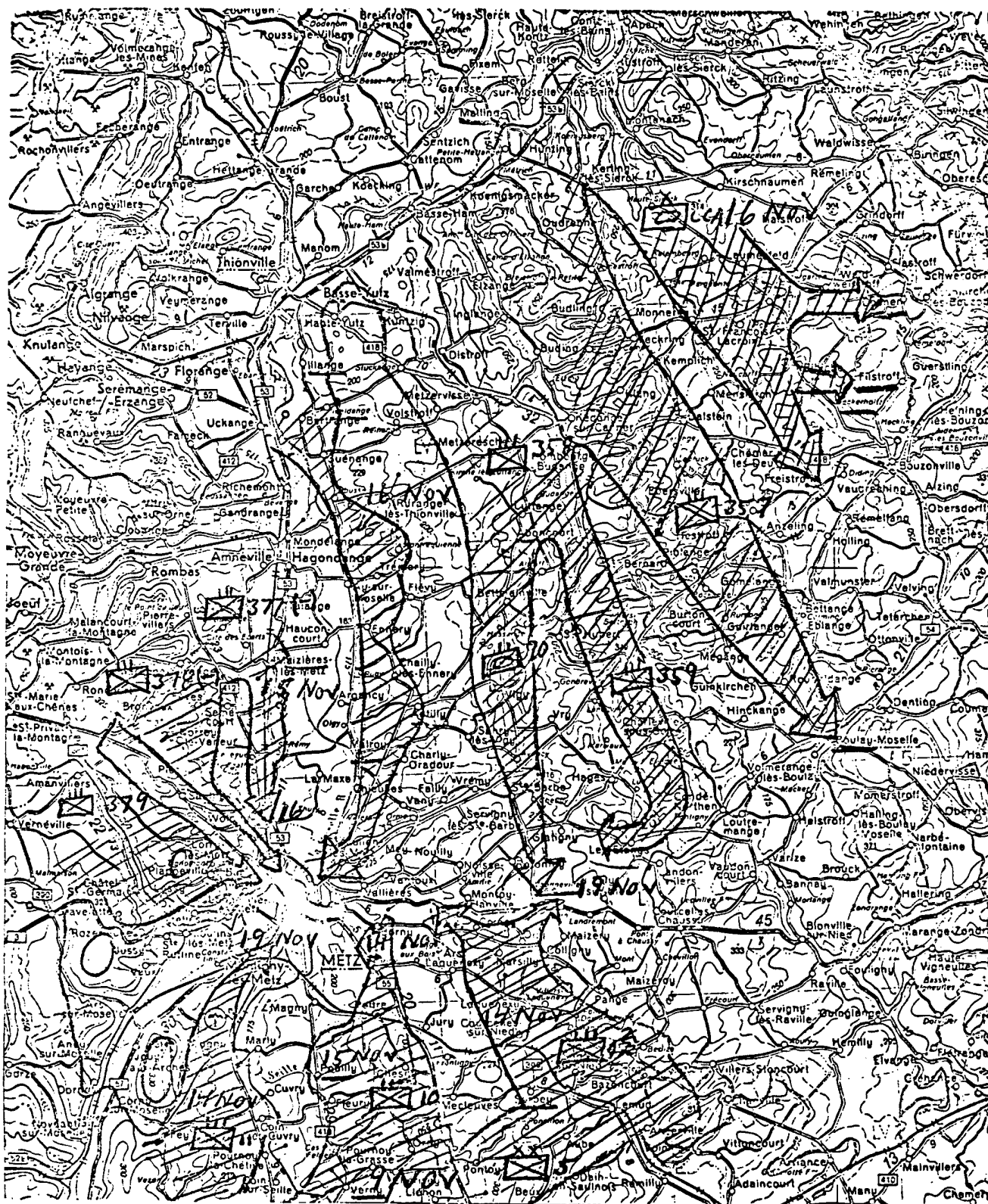
Map VI. Twentieth Corps plan for the attack of Metz,
November 1944.5

to the corps during October. Together with the battle-tested 90th and 5th Infantry Divisions, they constituted the major assault elements. The 83d Infantry Division was to have participated in this operation, but was diverted elsewhere before it could be used.

The plan of attack, issued on 3 November, was to attack east with the armored division in conjunction with an attack by 12th Corps, while three infantry divisions encircled and reduced the Metz fortress area (Map VI). The 90th Infantry Division was to force the Moselle River along the line Malling-Cattenom, reduce Fort Koenigsmacker, pass the armored division through to the east, and push south along the axis of the Maginot Line to link up with the 5th Infantry Division near Boulay. The 10th Armored Division and supporting 83d Division were to follow the 90th Infantry Division across the Moselle River and exploit rapidly to the east and seize crossing over the Saar River. The 95th Infantry Division was to demonstrate on D-day with a small crossing at Uckange, while continuing to contain the enemy in the Metz perimeter.⁶

The 12th Corps jumped off in its sector at 0730 hours on 8 November. The 90th Infantry Division jumped off at 0330 on 9 November. The tactical surprise gained by a night attack paid off in a quick advance, but flood waters in the Moselle prevented crossing heavy equipment and tanks. The 95th Division demonstration resulted in a two company bridgehead across the river. At 0600 the 5th Infantry Division jumped off and made rapid progress. On the 10th and 11th flood waters hindered the 90th Division's river crossing operations, but the 5th Infantry Division continued to report good progress on the south. The 83d Division was reassigned on 11 November to 8th Corps.

⁶U.S.A., XX Corps "Field Order 12" (APO 340: 3 November 1944), pp. 1 - 3.



Map VII. Execution of the second attack of Metz. Overprinted dates show the progress of the attack.⁷

⁷U.S.A., XX Corps, "The Reduction of Fortress Metz," Map No. 3.

The 90th Infantry Division repelled a coordinated counterattack on the morning of the 12th and continued a fort-by-fort reduction of the Maginot Line. The 95th crossed the river at a second point on the 10th, and a bridge was completed here on the 11th. The 5th continued to make good progress, and secured its objective on 12 November.

The 90th continued its operations to reduce the Maginot Line forts and by the 16th, progress was rapid. On that day, the 10th Armored broke out of the bridgehead and began its sweep east. Enemy columns were observed withdrawing east on the 17th, and the 95th Division assaulted Metz from the west in conjunction with French Forces of the Interior (FFI), who attempted to prevent the Germans from blowing the Moselle bridges. By the 18th the lines of the 5th, 90th, and 95th Divisions were closing east of Metz (Map VII). The encirclement was completed on the 19th and the city was reported cleared at 1435 on the 22d of November. Meanwhile, elements of the corps began regrouping for the attack to the east.

Six forts in the Metz complex continued to hold out against elements of the 90th and 95th Divisions. The 5th Division assumed responsibility for the Metz area on 23 November.⁸

The city of Metz was an important communication center astride the main route from Paris to Frankfurt. Events of this battle were overshadowed by the battles in the north during the early phases of this operation. This fact partially explains why the city did not fall until a deliberate attack was conducted in November. The November attack threatened to isolate the German mobile forces, which withdrew rather than

⁸Ibid., pp. 16 - 39.

lose their mobility. The fortress troops were only able to hold out a few days after the city was encircled.

The Germans criticized the U.S. commanders for failing to follow up their successes. They specifically pointed out unused opportunities to exploit the breakthroughs of 15 and 16 November in the 12th Corps sector and of 16 through 19 November in the 20th Corps sector.

It should be noted here that General Eddy's 12th Corps attack forced the German First Army to commit its last reserves on 12 November, but U.S. logistical problems and heavy U.S. casualties in this sector prevented the exploitation which the German high command feared. It is possible that U.S. forces could have been obtained from 20th Corps for exploitation if Metz had been merely contained.⁹

The correctness of the decision to seize Metz cannot be decided here, but the battle does illustrate the necessity for detailed intelligence and detailed plans during the attack of a fortified city. The frontal assaults and shallow envelopments of September and October were unrewarding; and, even when the infantry was able to close with the forts, they were not able to destroy them or their garrison. Final victory was not achieved until tactical surprise permitted a successful encircling attack and the defender's mobile forces were defeated.

Kharkov

Kharkov, with a population of eight hundred thousand, is located at the junction of three unnavigable rivers in the Ukrainian Republic of the USSR. Six railways radiate from the city, which is near to the Donbas coal

⁹Willy Manty, Oberst, "MS B-751," Translated by Ernest W. Matti (Headquarters, U.S. Army, Europe, 16 May 1947).

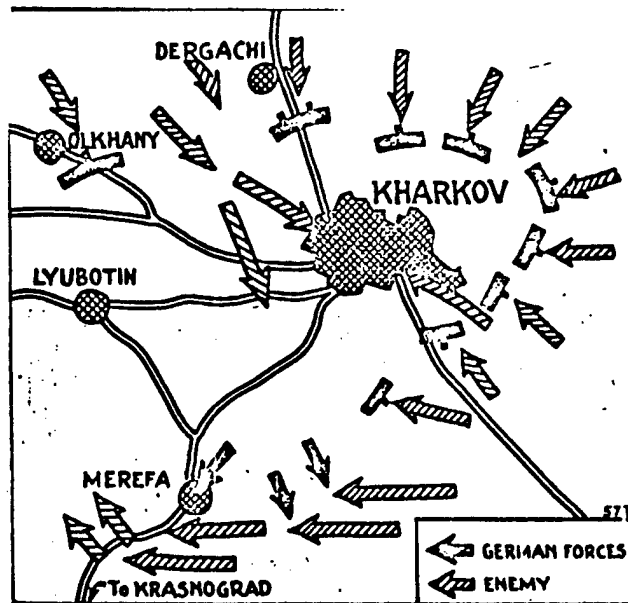
coal and Krivoi Rog iron ore producing regions. Kharkov was occupied by the Germans in 1918 and 1919 for nearly a year but was retaken by the Russian Army and held by the "White Russians" until November of 1919 before falling to the Bolsheviks. Kharkov was seized by the German Army in October 1941. The battle cited in this example occurred in February and March 1943, and the city was retaken by the Soviets for the last time in August of 1943.

This battle was fought to prevent the Soviet Armies from reaching the Dnieper River on the Ukrainian front. It appears, although the documentation is poor, that the battle began when two Soviet Armies totaling eight to ten divisions

outflanked a German Corps which was defending Kharkov and threatened to isolate the units in the city.

The Germans decided to withdraw from the city in order to retain their mobility.

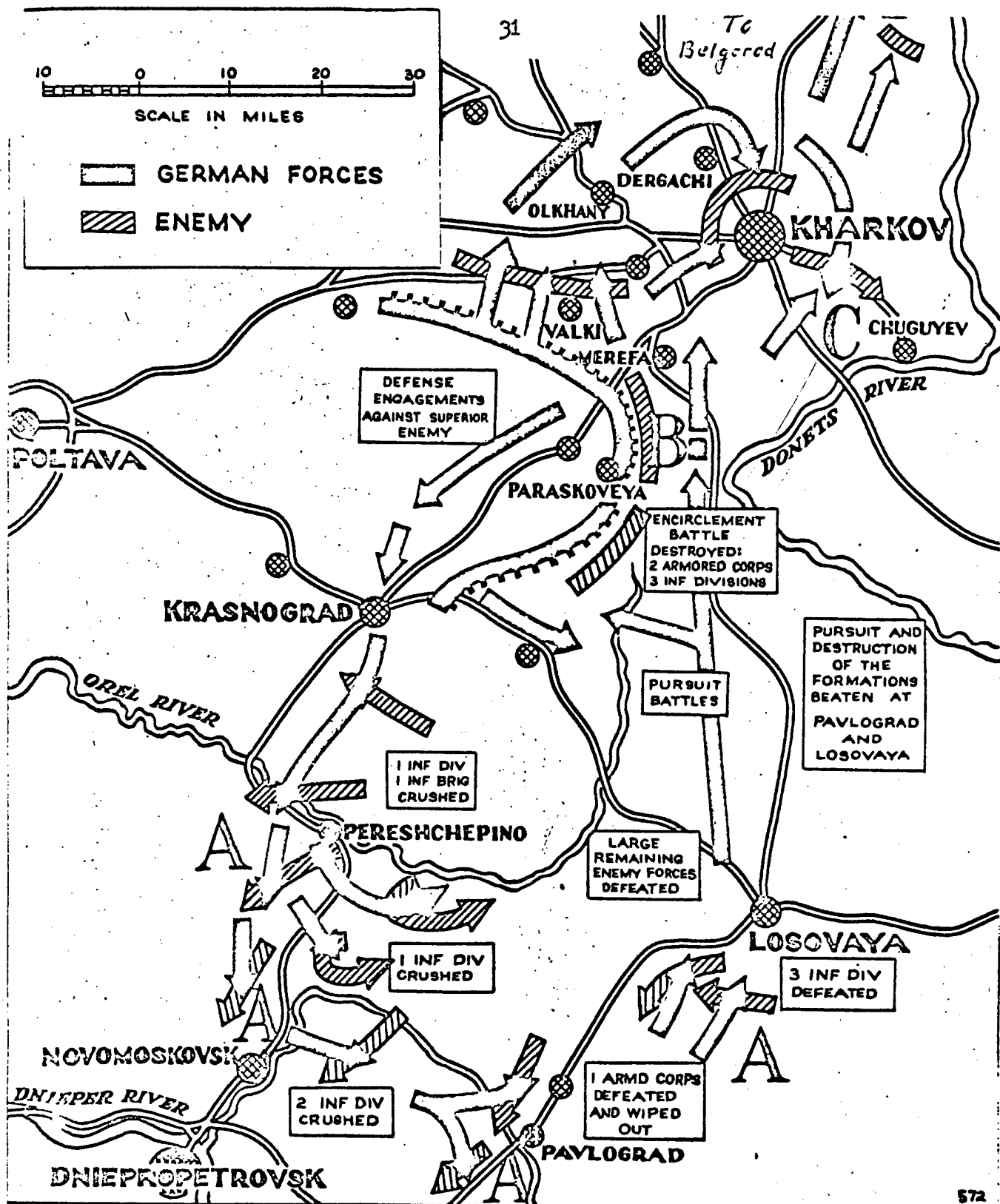
The article emphasizes that the Soviets had cut nearly all supply routes and had entered the city



Map VIII. Soviet attack on Kharkov.¹⁰
14-15 February 1943

at two points on its flanks (Map VIII). Apparently, some justification of the withdrawal was necessary in view of the contemporary German high command's city-fortress concept. The Soviets followed the German withdrawal until they

¹⁰Herman Pirich, "Struggle for Kharkov and the Dnieper, February - March 1943," (Translated by Command and General Staff College, Military Review, Dec 1943), p. 87.



Map IX. German counterattacks during the Battle of Kharkov,¹¹
February and March 1943

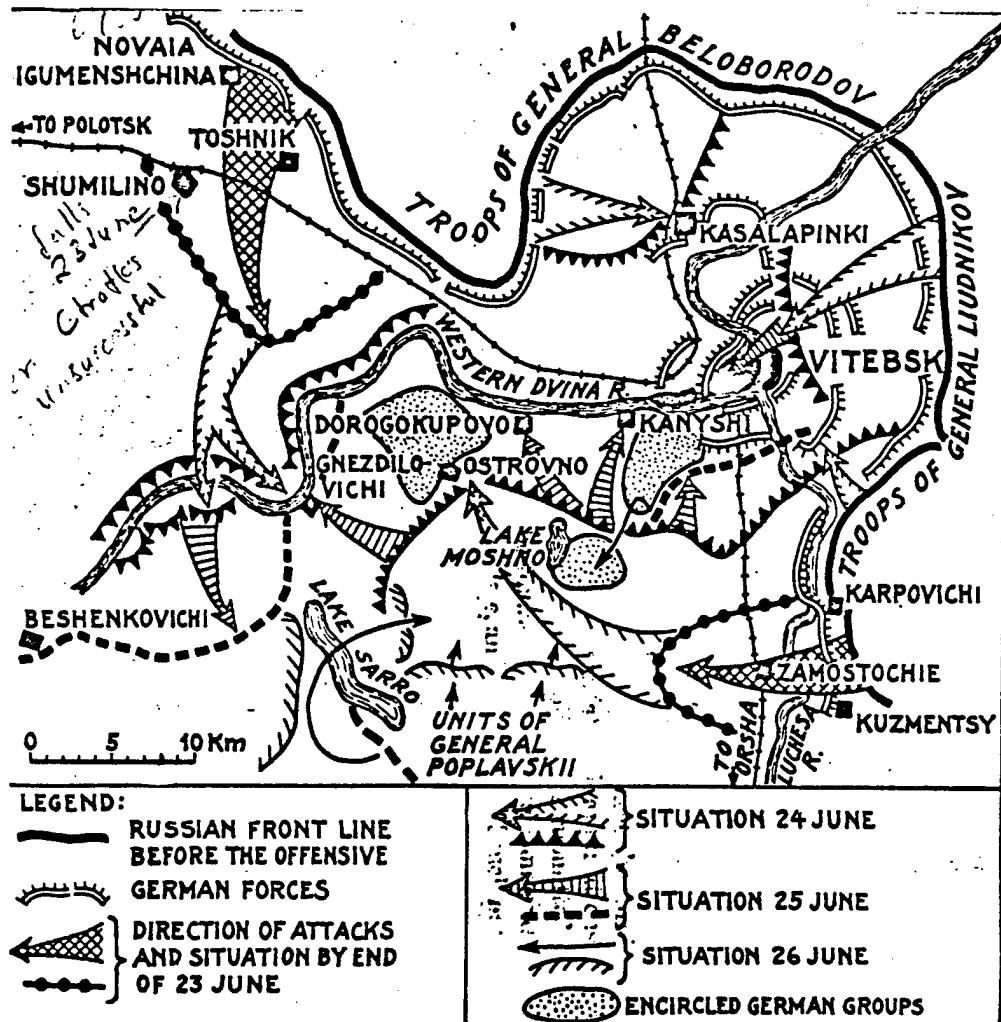
¹¹Ibid.

were overextended. The Germans used their superior mobility to defeat the Soviets in a battle of movement over the steppes between Kharkov and the Dnieper (lower half of Map IX). After defeating the Soviet mobile forces, the Germans proceeded to retake Kharkov, which was held by approximately three Russian regiments. The German plan was to encircle the city with elements of one division on the west and north while another unit swung wide to sever the main highway to Belgorod and isolate the city (upper half of Map IX). Attacks were also planned on the south and west flanks of the city.

The attack was executed as planned, and the city was isolated by 13 March. The last resistance within the city was cleared on the 14th of March.

At the time that the referenced article was written, Hitler was interfering more and more with the operations of the German Army, preventing tactically desirable withdrawals and directing the use of fortress-cities as strongpoints to be held at all cost. This account could well be an attempt to demonstrate the desirability of the more conventional tactics of defeating the enemy mobile forces, even if this requires giving up ground. It follows that the enemy should be driven back to expose the flanks of strongpoints such as the city of Kharkov and isolate the defenders before destroying them. The participation of the Adolph Hitler Bodyguard Division and the obvious success of the German forces in this battle, which occurred at a time when the Germans were having more reverses than successes, would make the tactics more palatable to the German high command.¹²

¹²Ibid.



Map X. Soviet attack of Vitebsk, June 1944.¹³

¹³Colonel S. Shishkin, "The Vitebsk Operation," Krasnaya Zvezda, 25 October 1944 (Translated by U.S. Army Command and General Staff College, Military Review, Jul 1945), p. 95.-

Vitebsk

Vitebsk is a city of one hundred twenty-eight thousand¹⁴ located on the Dvina River in the Byelorussian (White Russian) Soviet of the USSR. It is located on a long low ridge which leads from Warsaw to Moscow where the ridge passes between the Pripet Marshes and the marshes south of Leningrad. Prior to annexation by the Russians in 1772, it had been controlled by the Poles and, later, the Lithuanians.

The Vitebsk fortified area formed a pivot on the left wing of the German Central Army Group. There were two main fortified lines; the first was fifteen kilometers out from the city and the second was in the vicinity of the city. The city had been transformed into a fortress. It was defended by the 53d Army Corps with five infantry divisions and one air force division.¹⁵ Previous Russian attacks had exposed flanks of the defense as shown on Map X. Since Vitebsk lay near the boundary between two army groups, troops from both army groups were involved in the attack. Lieutenant General Beloborodov's army on the north made its main attack near the western shoulder of the penetration to seize bridge-heads across the river west of the city and assist in isolating the defenders. They were to continue the attack east toward Vitebsk. Lieutenant General Liudnikov's army was to make its main attack south of the city, driving west until in position to turn north and link up with Beloborodov's forces. Link-up would complete the first phase of the attack, and would be followed by operations to destroy the encircled enemy.

¹⁴1956 population, *Encyclopedia Britannica*, Vol. 23, p. 221.

¹⁵The German divisions were probably under strength and poorly equipped by this phase in the war.

Preparations included training in techniques of river crossing and attack of fortified area. Rehearsals were conducted in mock-ups of the Vitebsk fortifications.

By the end of the second day of the attack, the city was effectively cut off. A surprise frontal attack reached the city outskirts on the same day. The encirclement was completed that night, and by the third day the enemy had been divided into three pockets. The Germans still held the river line inside the city. Elements of General Liudnikov's troops infiltrated Vitebsk from the east on the third night and seized the new bridge across the Dvina. The city was secured by 0600 on the 4th day while the Germans attempted to break out to the west. The escape attempt was defeated by the encircling forces and the enemy was compressed into increasingly smaller areas. The largest enemy group was hit from three sides and cut into several parts. This group was destroyed by the end of the fifth day of the attack.

Peculiarities of the operation were the rapid tempo of the attack, the surprise gained by counterreconnaissance and by concentrating and regrouping at night, and by registering artillery fires in areas other than that of the attack. The seizure of a favorable line of departure on the night before the attack was helpful, and the use of air against the retreating enemy was effective.¹⁶

¹⁶Ibid., pp. 93 - 97.

SUMMARY OF ATTACK ON FORTIFIED CITY

	<u>Time required</u>	<u>Relative Combat Attacker</u>	<u>Power Defender</u>	<u>Population</u>
<u>Metz</u>	15 days.	2 inf., 1 armored div.	1 inf. div. in city, 2 inf. div. on flanks of city. Limited combat effectiveness.	100,000; probably pacified.

Remarks: Initial attacks in September and October were unsuccessful. A second major attack was slowed on the north and west by Maginot Line forts, but made rapid progress on the south. Time required to defeat fortifications extended the length of this attack.

	<u>Time required</u>	<u>Relative Combat Attacker</u>	<u>Power Defender</u>	<u>Population</u>
<u>Kharkov</u>	(see remarks)	2 div. assault forces and 1 div. isolation force on city proper.	3 regiments identified in city proper.	800,000 in 1956; potentially hostile, but probably pacified

Remarks: The mobile warfare around the city lasted for two months. The assault on the city lasted two days after the Soviet mobile forces were driven back. Neither side attempted to hold the city in force after the attacker threatened to isolate the garrison.

	<u>Time required</u>	<u>Relative Combat Attacker</u>	<u>Power Defender</u>	<u>Population</u>
<u>Vitebsk</u>	4 days after major assaults initiated on flanks of city.	2 armies of 10 divisions	5 inf., 1 air force div.	128,000 potentially hostile, probably pacified

Remarks: The defensive forces attempted to withdraw, but were blocked by the deep pincers and eventually destroyed. They did not attempt to hold out in the city.

CHAPTER III

THE CITY AS PART OF A FORTIFIED LINE

During the battle for Okinawa, the cities of Naha and Yonabaru were used as avenues of approach for flanking attacks on the Shuri mountain defenses.¹ In Europe, however, the presence of a strong fortified line near a city usually reduced the tactical importance of that city.

The Germans halted the Allied advance and established continuous defensive lines between June and July of 1944, and again in November 1944. The Allied armies forced the Germans to abandon the first defensive line when they penetrated near St. Lo and exploited toward the Seine River. The Germans used the fortifications of the Siegfried Line and the obstacle of the Rhine River as the backbone of the second line. The battles to penetrate this line in the vicinity of Aachen are the subject of one of the historical examples in this chapter.²

The battle of Aachen is an example of this. The most difficult fighting at Aachen took place during the efforts to isolate the city and prevent reinforcement. The city fell relatively easily after these battles were successfully concluded.

¹Roy E. Appleman et al., U.S. Army in World War II, The War in the Pacific, Vol.: Okinawa: The Last Battle (Washington 25, D.C.: U.S. Government Printing Office, 1948), pp. 376 - 382.

²United States Military Academy, Department of Military Art and Engineering, The War in Western Europe, Part 2 (West Point, New York: U.S. Military Academy Adjutant General, 1949), pp. 43 - 103.

The other two examples in this chapter are battles for the ports of Cherbourg and Brest.

These port cities are included in this chapter because the avenues of approach in both cases were limited by the sea. This permitted the defense to concentrate upon the existing approaches.

The defenses of Cherbourg were oriented toward the sea and fell to an assault from the rear after six days. The defenders of Brest were able to use previously prepared fortifications outside the city to establish a coordinated defense which held back the attack of three infantry divisions for more than a month.

In the preceding two chapters, the corps plans for the attack of cities varied with the combat situation, the characteristics and land forms of the terrain around the city, and the communications system of the area. In most cases the attacker took measures to isolate the city and defeat enemy mobile forces before assaulting the city itself. The most effective attacks were on the exposed flanks of an isolated city.

A city such as Aachen, which was located within a fortified zone, or a city with obstacles on its flanks, is a more difficult objective. The attacker requires more time and combat power to seize this type of objective.

In all of the examples used in this chapter a senior headquarters ordered the corps commander to seize the city. The corps commander was not permitted to by-pass and strike out for deeper objectives.

Cherbourg

Cherbourg is a port city on the coast of Normandy with a population of thirty-five thousand people.³ Allied plans required early capture of the port facilities to permit logistical buildup necessary for further operations on the continent.⁴

About two weeks after the Allied armies landed on the continent, the capture of Cherbourg became even more urgent. During the week of 19 June the highest tide of the year and a heavy storm damaged unloading facilities supporting the units in Normandy. As a precaution, First Army ordered a one-third reduction in artillery ammunition for the attack on Cherbourg.⁵

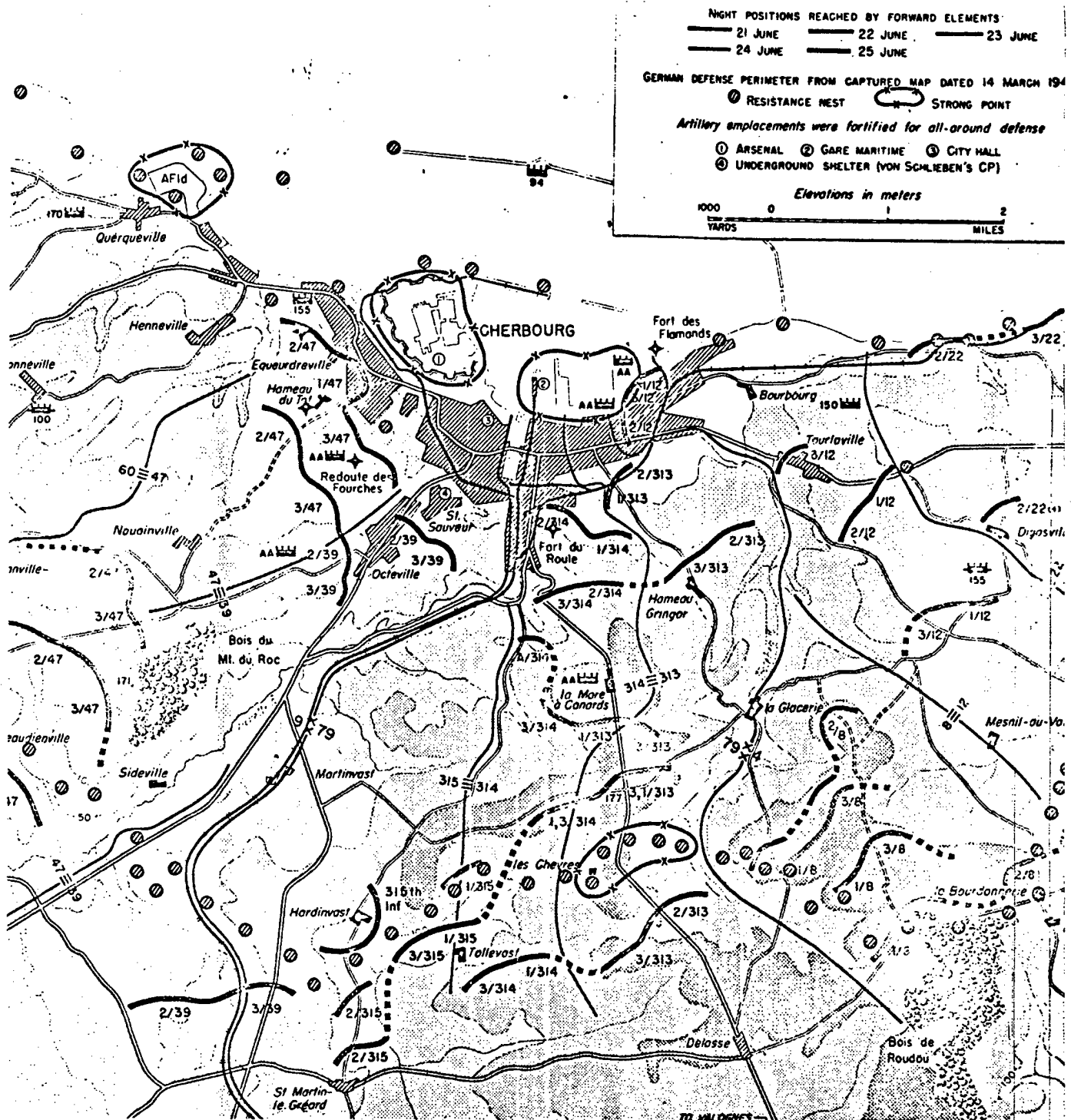
Major General J. Lawton Collins planned to attack Cherbourg from the rear with 7th Corps, using three infantry divisions abreast. A heavy aerial preparation was scheduled to soften up the German defenses.

The 4th Division, which had been attacking west in an effort to isolate Cherbourg, was directed to continue on with its mission. The 79th Division was ordered to make its principal attack on the right of its zone to seize the high nose which terminates at Fort du Roule. The 9th Division's main attack was on its right to seize the Octeville heights which overlook Cherbourg from the west and south (Map XI).

³1954 census.

⁴Martin Blumenson et al., Command Decisions (Washington 25, D.C.: U.S. Government Printing Office, 1960) (Edited by Kent Greenfield, pp. 419 - 427).

⁵U.S. Department of the Army, Historical Division, Utah Beach to Cherbourg (6 June - 27 June 1944) (Washington 25 D.C.: U.S. Government Printing Office, 1947), p. 171.



Map XI. U.S. 7th Corps attack of Cherbourg, June 1944.⁶

⁶ Gordon A. Harrison, United States Army in World War II, The European Theater of Operations, Vol.: Cross-Channel Attack (Washington 25, D.C.: U.S. Government Printing Office, 1951), Map XXIV.

General Collins sent an ultimatum to the commander of the German forces in Cherbourg, General Von Schlieben, on the night of 21 June, which went unanswered. An attack was scheduled for the afternoon of 22 June 1944. While waiting for the grace period of the ultimatum to run out, the three infantry divisions probed the German lines and the Air Force prepared to conduct an eighty minute bombing and strafing preparation of known enemy installations.⁷

By H-hour U.S. troops had withdrawn a minimum of one thousand yards and medium bombers delivered a series of air attacks designed to form an aerial barrage moving northward in front of the attack. Although some U.S. units suffered casualties from the air attack, the attack progressed as scheduled.⁸

The 9th Division penetrated the outer ring of fortifications and seized a suitable departure area for the final drive into the city on the 23d of June, but the city defenses did not crack until the next day. The U.S. Navy supported the attack on Fort du Roule on the 25th, but was forced to engage in a self-preservation duel with coastal batteries before the fort was taken. With the fall of Fort du Roule on 25 June, the Germans initiated a systematic destruction plan in the port.⁹

The remainder of the battle to clear the city was a series of battalion and smaller sized unit actions against strongpoints. The following phrases are typical of the after action reports for this period:

⁷ U.S. Department of the Army, Utah Beach to Cherbourg, p. 172.

⁸ Ibid., p. 172.

⁹ Ibid., p. 190 - 192.

The 1st Battalion was stopped by fire from the thick-walled arsenal . . . the 2d Battalion was unable to get beyond the railway . . . two battalions were slowed by Nebelwerfer fire and direct fire from antiaircraft and 88-mm. guns in the Octeville area (but) . . . after covering the tunnel entrances. . . . At city hall, which the Germans had fortified and defended all day . . . surrendered with 400 troops to Lt. Col. Frank L. Gunn, 2d Battalion commander.¹⁰

Surrenders increased when communications between strongpoints was ruptured, and the final destruction of the remnants of four German divisions on the 27th marked the end of the battle.¹¹

The after action report listed the following difficulties with the planning and execution of the aerial bombardment on the 22d: "Some units received casualties from the air preparation. Errors may have been caused by drift of the marking smoke in a strong wind."

Difficulties were encountered in planning and coordinating the aerial effort because the aircraft were stationed in England, the Air Commander was with First Army, and the attack was planned by VII Corps. "The most effective plan used artillery against anti-aircraft prior to the aerial bombardment, and in a normal preparatory role after the air strikes."¹²

The quick victory in this attack can be attributed to the attacker's air and naval superiority, the fact that the heaviest defenses faced seaward, to the lack of room for maneuver within the defensive ring, to weariness of the defenders caused by their previous fighting, and to the terrain in the area which permitted the attacker to mass combat power in critical portions of the 9th and 79th Division zones and penetrate to seize the dominating terrain above the city.

¹⁰Ibid., pp. 194 - 199.

¹¹Ibid., p. 199.

¹²Ibid., p. 172 - 173.

Brest

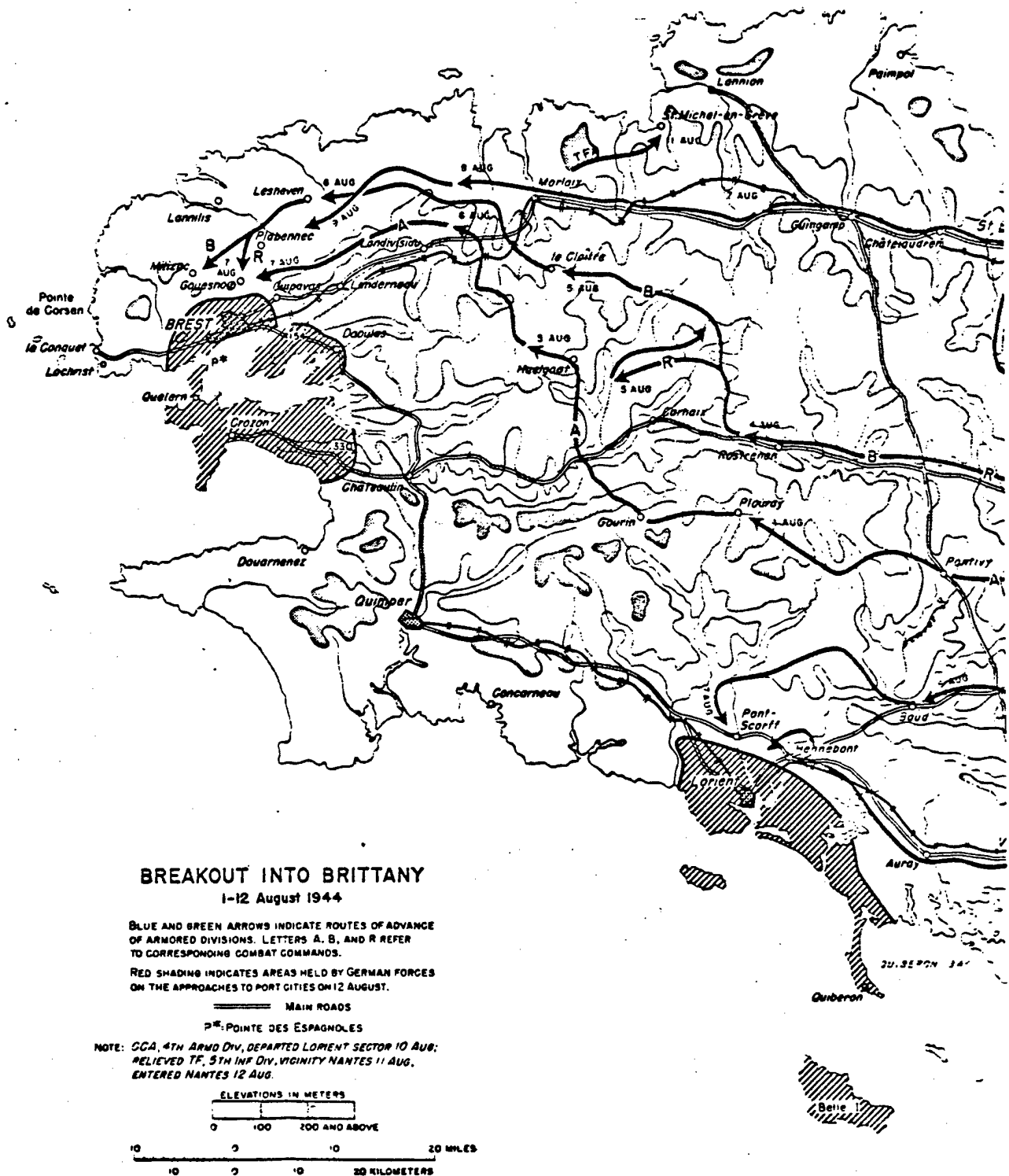
Brest is a port of one hundred thousand people¹³ on the tip of the Brittany Peninsula. It was the main port of entry for the American Expeditionary Force in World War I. Allied planners in World War II wanted this natural harbor and fairly well developed port facility to support the quick buildup of men and material which they envisioned on the continent. For this reason the ground war came to Brest less than two months after the invasion of Normandy. The Germans had prepared for this event by building a strong line of fortifications on good defensive terrain some distance from the city proper. A second line of fortifications was located closer to the city, and the old city proper was surrounded by an earthen wall up to thirty feet high and from thirty-five to sixty feet thick at the base. The wall dated back to 1688, when Vauban's fortifications were completed.¹⁴

The American advance from St. Lo effectively isolated the German forces remaining in the Brittany Peninsula in early August 1944 (Map XII). Troops of the 6th Armored Division were within ten kilometers of the city, but did not have sufficient force to isolate the city and prevent elements of the 266th Infantry Division and 2d Parachute Division from withdrawing behind the outer ring of fortifications.¹⁵

¹³1954 Census.

¹⁴U.S. Army, 2d Infantry Division, From D+1 to 105, The Story of the 2d Infantry Division (Paris: Deloene Vovgrawuar, approximate date 1944), p. 30, and "Brest," Encyclopedia Britannica, 1961 ed., Vol. 4.

¹⁵Martin Blumenson, U.S. Army in World War II, European Theater of Operations, Vol.: Breakout and Pursuit (Washington 25, D.C.: U.S. Government Printing Office, 1961), pp. 384 - 387.



Map XII. Allied breakout into Brittany, August 1944.¹⁶

¹⁶Ibid., Map IX.

By 21 August, the advance elements of the fifty thousand man 8th Corps were conducting preliminary operations against the outer defenses of this key port. A minimum of twenty thousand German combat troops and eighteen thousand service troops defended the city.

The corps mission was to "continue the reduction of the Brittany Peninsula and attack at H-hour, D-day to capture Brest." Major General Troy H. Middleton, the corps commander, anticipated a time-consuming and difficult attack and requested suitable amounts of artillery ammunition. Higher headquarters reduced his ammunition and artillery support for the operation was restricted from 25 August until 7 September.¹⁷

Weather delayed air support for two hours on D-day, and remained poor after D-day until 1 September.¹⁸ The terrain was open rolling fields bounded by low hedgerows (Map XIII). Four main roads enter Brest from the north, and one each from the east and from the west. Since cross country movement was difficult, each road was considered an avenue of approach.¹⁹ The defenses consisted of an outer ring and an inner ring of fortifications. The estimated enemy strength was 20,000 effectives, but the actual strength was 20,000 men in combat units and up to 24,000 service troops who were integrated into the defensive units. The defenders had extensive anti-aircraft and seacoast artillery which was used in a ground role during the defense. Thirty to thirty-four battalions of artillery supported the attackers. Although the H.M.S. Warspite supported

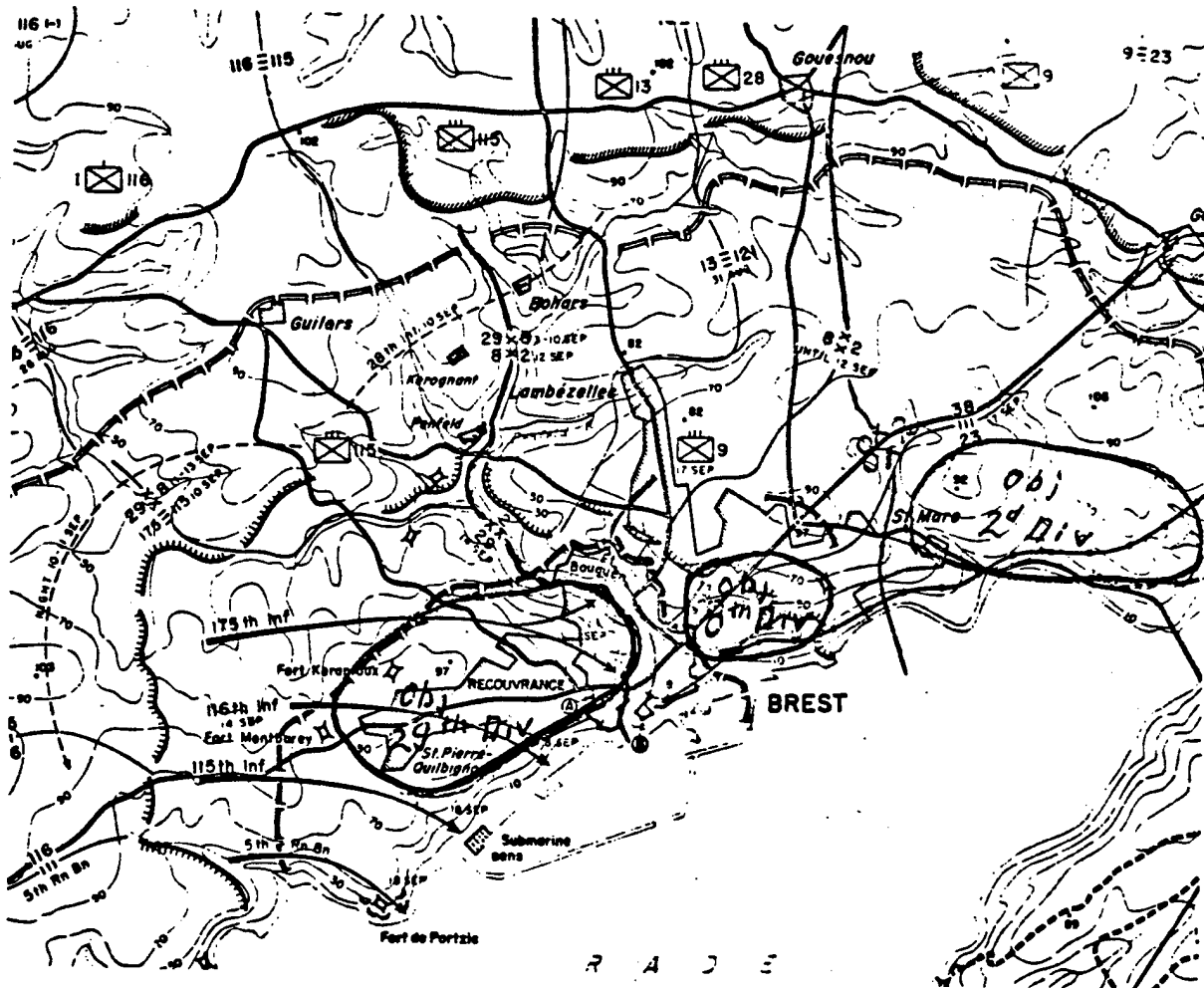
¹⁷U.S.A., VIII Corps, "After Action Reports," September 1944, p. 18.

¹⁸Ibid., p. 15.

¹⁹U.S.A., VIII Corps, "Field Order No. 11, Tactical Study of the Terrain," 20 August 1944, p. 1.

one ground attack, the value of its support was doubtful. The corps commander's request for landing craft was refused.²⁰

General Middleton attacked with three infantry divisions abreast, and assigned each division an objective on the waterline (Map XIII). The 8th Division executed the main attack in the center of the zone, with



Map XIII. 8th Corps plan for the attack of Brest, August, September 1944.²¹

²⁰U.S.A., VIII Corps, "After Action Report," September 1944, p. 8.

²¹Blumenson, Map XV. Corps objectives were overprinted from information in 8th Corps Field Order No. 11.



Map XIV. Progress of 8th Corps attack on Brest.²²

the 29th on the right and the 2d less the 38th Infantry Regiment on the left.²³ Seizure of the objectives would destroy enemy resistance and accomplish the corps mission. There is no evidence of phasing in the operations.²⁴

From 21 August to 25 August minor actions were conducted to complete the isolation and compress the defenses. Task Force B cut land communications between the Crozon Peninsula and the forces in Brest while the infantry divisions prepared for the assault.²⁵

From 25 August until 7 September the attack progress was measured in yards as divisions engaged in small unit actions for fortified positions (Map XIV). Ammunition shortages limited operations by 2 September. The close encirclement of Brest was completed when the 29th Division cut the Brest - Le Conquet road. An apparent break in the enemy lines on the southeast flank failed to produce decisive results at this time. The 38th Infantry Regiment returned to 2d Division control on the last day of August and the 2d Division captured Hill 105 on 2 September as the 8th Division captured Hill 80.²⁶ These hills were two of the key enemy defensive positions outside the city.

On 8 September General Middleton ordered a coordinated attack with no important changes in the division missions. The 2d Division captured

²³The 38th Infantry Regiment was initially the nucleus of Task Force B which cleared the Daoulas (Plongastel) Peninsula south of the Elorn River between 21 and 31 August. It then rejoined the division and participated in the last thirteen days of the operation.

²⁴U.S.A., Ninth Army, "Operations I, Brest-Crozon," (September 1944), p. 7

²⁵U.S.A., VIII Corps, "After Action Reports," September 1944, pp. 1 - 9.

²⁶Ibid., p. 9.

Hill 92 and the 8th Division captured Hill 82. The 29th Division captured the village of Penfeld on 9 September while the 2d and 8th Divisions entered the built-up area of the city. More than 3,500 prisoners were captured on these two days as the defenders were forced off the best terrain and compressed into an increasingly smaller area.²⁷

Between 10 and 19 September the 2d and 8th Divisions encountered numerous pillboxes and prepared positions while fighting in the streets of Brest. The 8th Division arrived at the old city wall on 10 September, but failed in a costly effort to storm it. General Middleton decided to pinch out the 8th Division on 10 September and use it to clear the Crozon Peninsula. The defending commander, Major General Von Ramcke, rejected surrender terms on 13 September, and the Germans prevented the 29th Division from entering Recouvrance (West Brest) until 16 September. The 2d Division breached the city wall on 17 September and Major General Walter M. Robertson, the division commander, accepted the German surrender on 18 September. The Germans in Recouvrance surrendered to the 29th Division on 18 September, and the last Germans surrendered on 19 September.²⁸

Aachen

Aachen, a German city of one hundred thirty thousand,²⁹ was on the German border opposite its junction with Belgium and the Netherlands. The main portion of the Siegfried Line passed behind Aachen, but a switch line circled west of the city. The battle of Aachen was essentially a battle of two divisions to breach the Siegfried Line and isolate the city.

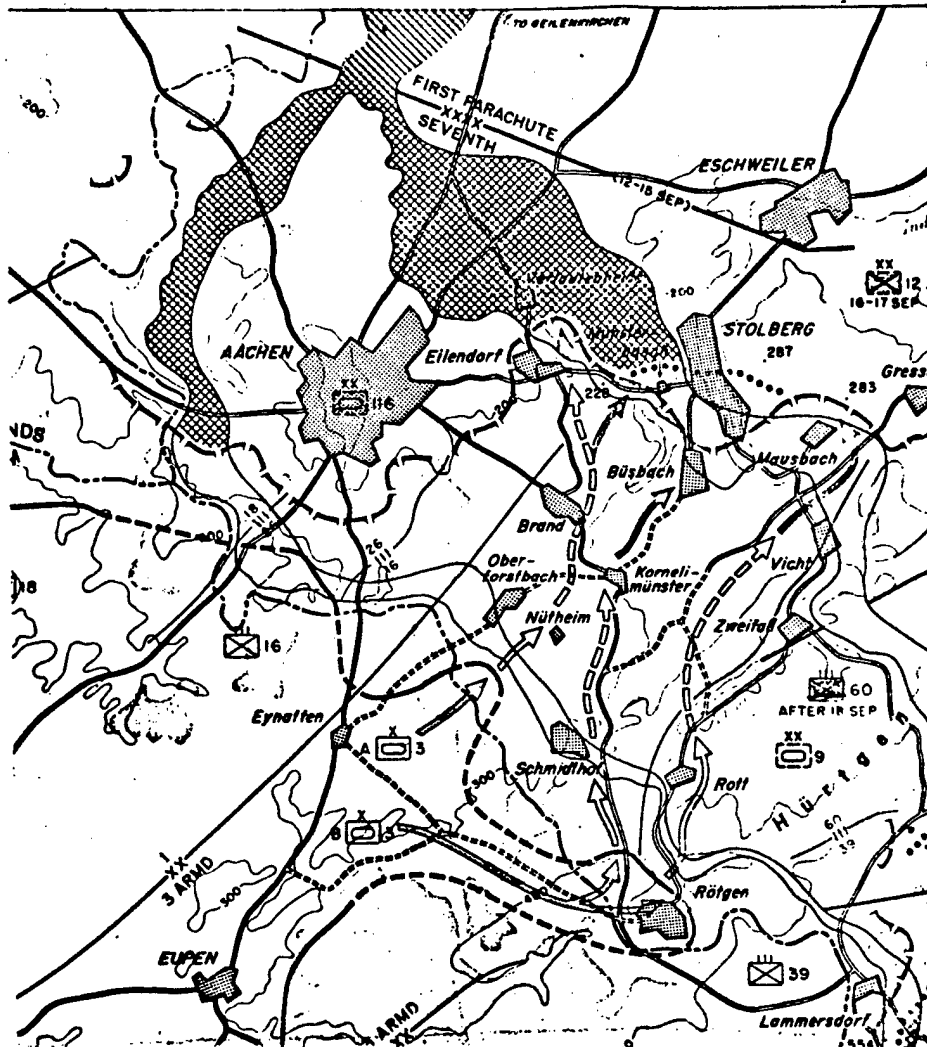
²⁷Ibid.

²⁸Ibid., pp. 7 - 11.

²⁹1950 Census.

The city was cleared by a force of five battalions without undue difficulty in nine days after the city was effectively isolated. To understand how the battle for Aachen began, it is necessary to summarize the events which led up to the battle.³⁰

The Allied exploitation through France encircled and destroyed many German units and left the Siegfried Line lightly defended in the 7th Corps sector. Major General J. Lawton Collins exploited this advantage by opening a hole in the Siegfried Line before the Germans had an opportunity to form fresh units and occupy the



Map XV. U.S. 7th Corps penetrates the Siegfried Line. 12-15 September 1944.³¹

³⁰U.S.A., 1st Infantry Division, "Report of Breaching the Siegfried Line and the Capture of Aachen," APO 1: 7 November 1944), pp. 1 and 11.

³¹MacDonald, United States Army in World War II, European Theater of Operations, Vol: Breakout and Pursuit (Washington 25, D.C.: U.S. Government Printing Office, 1961), Map IV.

prepared positions. General Collins used the 3d Armored Division to penetrate both belts of the Siegfried Line on a front of five miles while the 1st Infantry Division supported the operation and protected the north flank of the penetration (Map XV).

The Allied situation in other sectors was not so favorable, however, and the attack ground to a halt. Shortages of supplies, still being hauled from Cherbourg and the Normandy Beaches, made continuation of the overall Allied offensive difficult. The following days saw German counterattacks and the natural defensive strength of the terrain sap the strength of 7th Corps and German units, and a stalemate developed as both sides prepared for the next attack. The 1st Division was facing prepared German fortifications along the south flank of the city of Aachen.³²

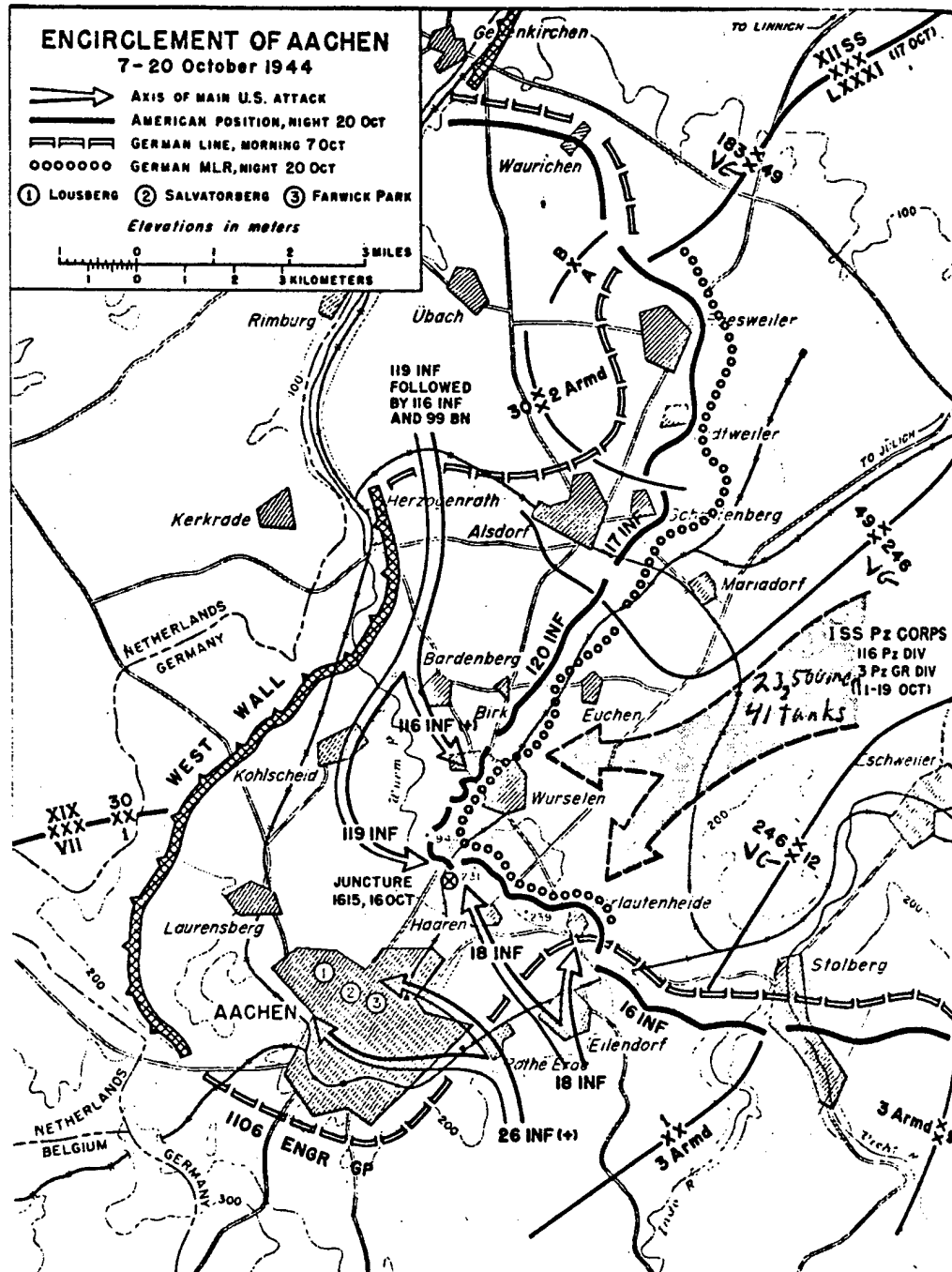
The 19th Corps, on the north of 7th Corps, was several days behind 7th Corps, but Major General Charles H. Corlett, 19th Corps commander, alerted both the 2d Armored and 30th Infantry Divisions to prepare to hit the West Wall on 18 September. His corps in position, he ordered an attack on 20 September to breach the fortifications, seize crossings over the Roer River nine miles beyond, and assist the 7th Corps in encircling Aachen. The attack was delayed until 20 October, however, because General Hodges,³³ the Army commander, wanted an opportunity to build up an ammunition stockpile before he tackled the formidable fortifications of the Siegfried Line.³⁴

As the 1st Infantry Division continued its operations against the fortifications of the Siegfried Line, they learned that the Germans had

³²Ibid., pp. 86 - 95.

³³Lieutenant General Courtney H. Hodges.

³⁴Ibid., pp. 96 - 113, and p. 260.



Map XVI. Battle of Aachen, October 1944.³⁵

³⁵ MacDonald, Map IV and p. 283. The 183 and 246 Volksgrenadier (VG) Divisions were fully equipped, and the 183d had two battalions in each regiment. The 12th Division was also fully equipped with 2-battalion regiments. The 49th Division was weak and battle weary.

defenses along the southern outskirts of Aachen. Since this was the first German city which was threatened by American forces, the Germans expected an immediate drive to take the city.³⁶

The 7th Corps was interested in deeper objectives, however, and attacked with the 3d Armored Division to the east. The 1st Infantry continued its operations on the north flank of the penetration and supported the 3d Armored attacks on Stolberg.³⁷ These attacks were stopped by German reserves and both sides took time to regroup (Map XVI).

By 2 October, 19th Corps was ready to assault the Siegfried Line. The decision was made to isolate Aachen with encircling attacks by the 30th Division from the north and the 1st Division from the south. The 30th Division's capture of Wurselen would be the signal for the 18th Infantry Regiment of the 1st Division to attack north and complete the isolation of the city (Map XVI).³⁸

Considerable shuffling of forces was necessary in order to free units for the 18th Infantry's attack. The 1106th Engineer Group acted as a containing force on the southeast corner of Aachen and a battery of 155 mm. self-propelled guns was attached to the 1st Division.³⁹ The 18th Infantry was ready to go by 2 October, but 19th Corps, or more specifically, the 30th Infantry Division, was being held up by a combination of determined defenders, difficult terrain, field fortifications, and German counterattacks. Finally, the 30th Division predicted it would be in Wurselen by 8 October and

³⁶U.S.A., 1st Infantry Division, Ibid., pp. 2 and 3.

³⁷Ibid., p. 4. In Manuscript B816, German General Schack describes this period as the first battle of Aachen.

³⁸Ibid., p. 5.

³⁹U.S.A., VII Corps, "Operations Memorandum 101" (1 October 1944), pp. 1 - 11.

the 18th Infantry jumped off. It seized its objectives in the vicinity of Verlautenheide successfully on 8 October and defended them against all counterattacks although the situation was critical on several occasions. The 30th Division did not link up with the 1st Division until 16 October, but their operations took much of the pressure off 1st Division. In fact, Major General Clarence R. Huebner, commander of the 1st Division, visited the lead elements of the 30th Division after linkup to thank them for their efforts.

A surrender ultimatum was offered to the five thousand defenders of the city. When the ultimatum was refused, artillery and air bombarded the city, but an enemy buildup to the east prevented an immediate attack. Instead, the corps was hard pressed to defeat German relief attempts, which continued until the 19th of October.⁴⁰

On the 12th, a battalion of the 26th Infantry seized the factory area northeast of the city. On the 13th, the 2d Battalion of the 26th attacked due west while the 3d Battalion attacked to seize Observatory Hill and Lousberg. These attacks were continued on the 14th to secure a junction between the two battalions. "Progress was slow and each house was thoroughly cleared of both enemy soldiers and civilians before passing on."⁴¹

Counterattacks continued against the 18th Infantry as the Germans threw new units into the battle. Inside the city, two battalions of the 26th linked up on 15 October and in the succeeding days the 2d Battalion of the 26th and the 1106th Engineer Group moved into the city outskirts on the west and south. One additional battalion of Infantry was attached to the

⁴⁰Ibid., p. 7 - 9.

⁴¹Ibid., p. 9.

26th to secure portions of the city already cleared; and a tank-infantry task force of one tank and one infantry battalion was attached to the 26th Infantry Regiment for the purpose of assaulting a German strongpoint in northwestern Lousberg from the rear. The most difficult fighting in the city occurred when this force took its objective on the 19th.⁴²

The attacks by these five battalions inside Aachen continued on the 20th against strong resistance. Three battalions secured all of Lousberg, while another continued its attack westward. The fifth battalion consolidated areas already under U.S. force control. The attack continued until 1205 on the 21st, when Colonel Wilck, commandant of the German defenders, surrendered.⁴³

The 1st Division historian had this to say about the battle:

During the entire period of the battle for Aachen, 5,637 prisoners were taken by the Division. The Division had successfully held off many strong attacks by enemy armor and infantry supported by the heaviest artillery concentrations this Division has ever experienced, while at the same time making an attack in an opposite direction against a heavily fortified German town. It is felt that the success of this operation was due to the fact that the enemy in the first place had expected the Division to attack the town prior to the attack on the main SIEGFRIED Line itself; most of the defenses on the town were concentrated to the south and after fixing them with artillery, mortar and aerial bombardment, the enemy flank was turned from the east and north from a position which he had least expected the attack to come.⁴⁴

The 30th Division after action report adds:

A picture of the enemy commitment of reserves during the period covered by this report is one of the movement of troops from less active sectors of the Western front to the areas of immediate danger. This shift of troops indicated that no adequate infantry reserves were available for immediate commitment from Germany proper. The policy amounted

⁴²Ibid., pp. 10 and 11.

⁴³Ibid., p. 11.

⁴⁴Ibid.

to one of plugging the gap as soon as it began to appear. The area of our breakthrough drew enemy reserves from as far north as Nijmegen (100 miles to the north), and as far south as Luxembourg, Trier and Metz (250 miles to the south).⁴⁵

⁴⁵U.S.A., 30th Infantry Division, "After Action Report" (APO 30: October 1944), p. 19.

SUMMARY OF ATTACK ON A FORTIFIED CITY
AS PART OF A FORTIFIED LINE

	<u>Time required</u>	<u>Relative Combat Attacker</u>	<u>Power Defender</u>	<u>Population</u>
<u>Cherbourg</u>	6 days.	3 inf. div.	Remnants of 4 divisions.	35,000; probably subdued.

Remarks: Fighting for the outer perimeter began on 22 June and ended on 25 June. Fighting in the city proper began on 24 June and lasted 4 days.

	<u>Time required</u>	<u>Relative Combat Attacker</u>	<u>Power Defender</u>	<u>Population</u>
<u>Brest</u>	25 days.	3 inf. div. + corps troops = 50,000 men.	40,000; 50% combat units.	80,000; probably subdued by long occupation and large enemy force.

Remarks: Penetration of the outer defenses required 15 days, clearing the city proper another 10 days.

	<u>Time required</u>	<u>Relative Combat Attacker</u>	<u>Power Defender</u>	<u>Population</u>
<u>Aachen</u>	9 days.	2 inf. div. to isolate, 5 bns. to clear.	5,000 man garri- son in city, 4 reduced strength divisions for a total of 18,000 men in LXXXI corps sector.	160,000; probably pacified by Allied bombing and desertion of militant Party leaders.

Remarks: Most difficult fighting occurred during penetration of Siegfried Line and defeat of relief attempts. Operations in city suspended at one time because of relief attacks by force of 23,000 men and 41 tanks.

CHAPTER IV

THE MEGALOPOLIS

The size of the population and the nature of the terrain enable the megalopolis to literally swallow large combat units. The tactical problems of combat in such areas are complicated by poor radio communications, limited observation,¹ hidden avenues of approach, countless hiding places for the enemy and friendly stragglers, and difficulty in maintaining discipline.²

Paris and Manila were captured by corps attacks during World War II and both of these battles are discussed in detail. However, most of the World War II battles for such large cities were conducted by armies or army groups. The battles of Leningrad, Stalingrad, Budapest, Berlin, and the Ruhr are examples.

The corps performed missions as a part of the isolating or assault forces during these battles, as directed by higher headquarters. The assault corps were usually assigned sectors of the cities for the attack. The assault

¹The terrain was described by one World War II author as offering the poorest observation encountered outside of jungles. (Japanese Defense of Cities as Exemplified by the Battle of Manila, Headquarters, 14th Corps, 1 July 1945, p. 14.)

²Although some U.S. commanders expressed concern over the problem of discipline in city fighting, there is no evidence of large scale misconduct among U.S. forces such as occurred when the Soviets attacked Belgrade and Budapest, or of large scale malingering such as some Allied armies were accused of in Europe.

force would attempt to seize key terrain to divide the defenders and isolate strong points, and then defeat the enemy in detail. This chapter includes a brief description of the battles of Stalingrad and Berlin.

The Communist programs to develop paramilitary forces and major population centers make it more likely that this form of combat will occur in future conflicts. It is interesting to note that many non-communist countries are following a governmental program designed to create population centers as an essential element of industrialization, and are developing paramilitary organizations as an adjunct to their military forces. Experience has proved that these paramilitary forces can be used effectively in the defense of a large city.

The populations of Paris and Manila actively supported the attacker. This single factor may well have been the reason why a corps-sized unit was able to seize these cities.

In the case of Paris, the Germans wanted control over the Seine bridges, but were forced to conduct a limited defense outside the city and then withdraw through the city by a combination of military circumstances and action of paramilitary elements of the population. The battle of Paris was complicated by political implications. The partial chronology of events in Appendix I will give some indication of these political problems which plagued the corps commander in this case.

The battle of Manila occurred because General MacArthur wanted to use the port facilities and to control the political and economic center of the Philippines. A group of Japanese naval officers, contrary to General Yamashita's concepts, decided that the city offered the best defensive terrain available for the purpose of delaying the U.S. offensive toward their Japanese homeland, and determined to make a last-ditch defense in Manila.

The populations of Berlin and Stalingrad were hostile to the attackers, and the forces involved were armies and army groups. This is not to say that the attitude of the population was the reason that larger units were used in these battles, but it was a factor in the operation. The capabilities of organized paramilitary organizations in a city is attested to by the fact that the civilian population seized Prague from two Schutzstaffel (Elite Guard) Divisions in 1945, and the initial successes of the Hungarians in 1956.

Paris

Paris, capital city, communications center, and industrial heart of France, had a population of over two million at the time that the Allied Army liberated it in 1944. Paris was spared the mass destruction which demolished many European cities, and the actual fighting in the city was limited to small skirmishes. The main defensive effort was conducted outside the western outskirts of the city, and was followed by a German withdrawal to the east of the city despite Hitler's orders to defend Paris to the last man and leave the city only after it was a field of ruins.

Hitler ordered General Choltitz to organize and conduct this defense with the twenty-five thousand plus men available. On 15 August Field Marshal Kluge, Commander in Chief in the West, modified Hitler's orders when he agreed that Paris could not be defended for a long period of time. He directed a defense of the outer ring of Paris by blocking the great arterial highways with obstacles and antitank weapons. The bridges were kept intact to permit withdrawal of the Fifth Panzer and First German Armies.³

³ Martin Blumenson, United States Army in World War II, European Theater of Operations, Vol: Breakout and Pursuit (Washington 25, D.C.: U.S. Government Printing Office, 1962), pp. 594 - 596.

The Americans planned to bypass Paris on both sides and isolate the city, hoping it would fall without a fight.⁵ The operation developed swiftly as 12th Corps captured Orleans and 20th Corps captured Chartres. The attacks on Chartres and Orleans are good examples of corps attacks on unfortified cities (Map XVII).

Elements of the 4th Armored and 35th Infantry Divisions from the newly formed 12th Corps moved from Le Mans toward Orleans and seized the Orleans airport on 15 August. The next day, Major General Gilbert R. Cook ordered the first major battle for his newly formed corps. He attacked with two armored columns from the north and northeast, while the 137th Infantry Regiment of the 35th Division attacked the city from the west. The converging attacks swept aside the light German resistance and secured the city of Orleans and, with it, the southwest approaches to Paris.⁶

In the meantime, miscellaneous German units in Chartres held up CCB of the 7th Armored Division for two days. The 20th Corps commander, Major General Walton H. Walker, ordered the 5th Infantry Division to assist CCB. On the morning of the third day, the 5th Infantry Division's 11th Infantry Regiment and CCB attacked. Chartres was secured, despite stiff resistance, with over two thousand prisoners taken. The capture of Chartres on 18 August opened the historic western gateway to Paris and, together with the capture of Orleans, opened the way for a drive to the upper Seine south of Paris.⁷

⁵Edgar A. Wilkerson, V Corps Operations in the ETO, 6 Jan 1942 (Publication data not given, 9 May 1945), p. 198.

⁶Blumenson, pp. 565 and 566.

⁷Ibid., pp. 564, 568 - 571.

The 20th Corps continued the advance eastward and crossed the Seine above Troy on the night of 25 August with elements of CCA of the 4th Armored Division. The remainder of CCA fought in the streets of Troy in an unsuccessful attempt to clear that city. Entrance to the city had been gained by an armored charge across three miles of open ground. The city was not secured until the next morning when the column that had crossed the river attacked the defender's rear.⁸

To the north of Paris, the Allies were still fighting to cut off and destroy elements of the German forces from Normandy. This situation was stable enough by 19 August to enable the Supreme Allied Commander to modify the original timetable for the invasion of Europe and order his units to cross the Seine and exploit to the German border.⁹ We have already seen how the 4th Armored crossed the Seine at Troy. On 25 August the 79th Infantry Division crossed the river north of Paris, thus jeopardizing the German defense of the city on both flanks.¹⁰

August 19 was a day of decision. General Eisenhower decided to modify his master plan. General Kluge decided Paris could not be defended in strength. A third event on the 19th was the uprising of the French underground in Paris. The French police joined the underground, and by 20 August, General Choltitz was forced to request an armistice. He offered to spare Paris if the French underground would permit his forces to withdraw to the east.¹¹

⁸Ibid., p. 584.

⁹Ibid., pp. 573 - 575.

¹⁰Ibid., p. 574.

¹¹Wilkenson, Ibid., p. 198.

LIBERATION OF PARIS

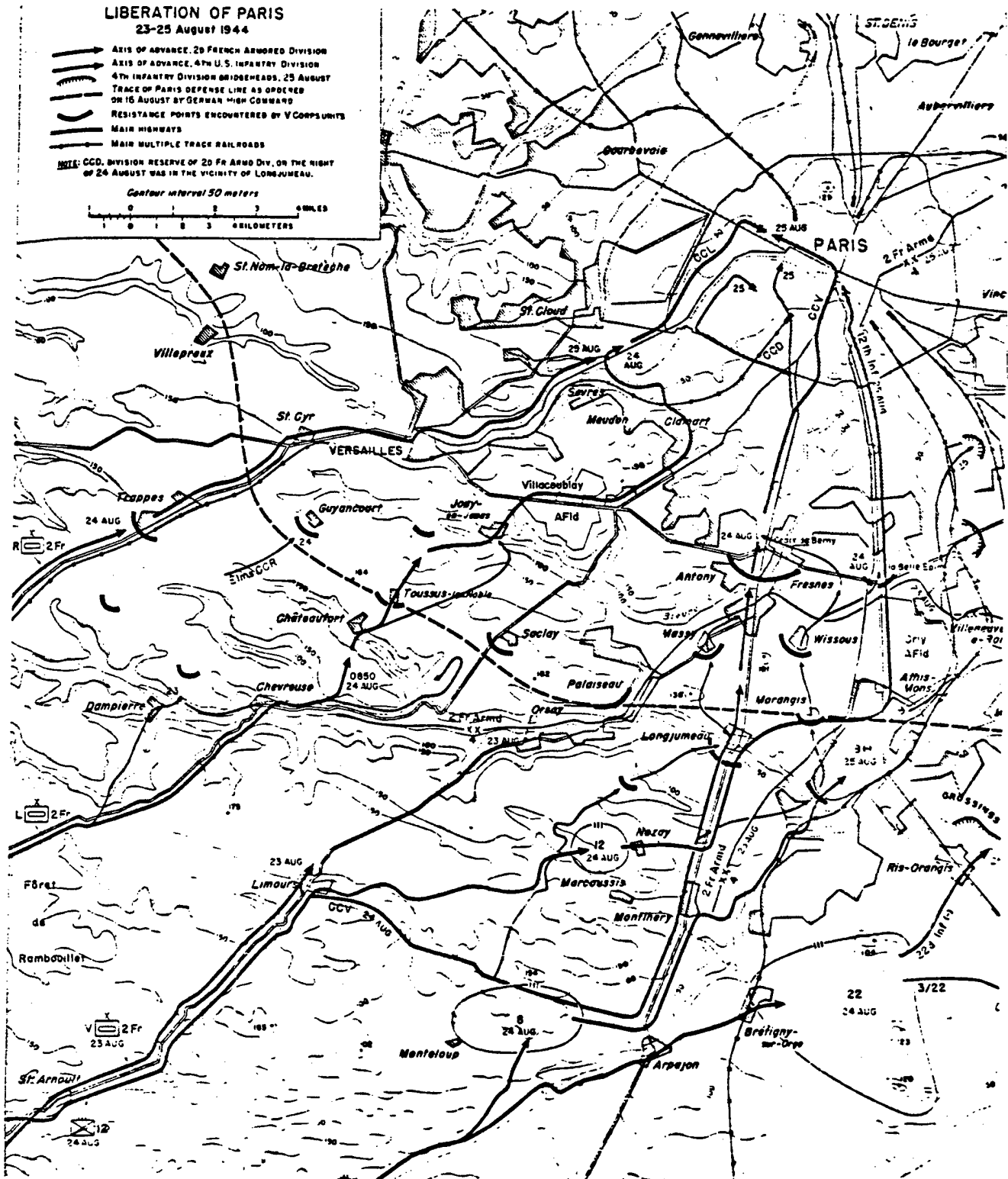
23-25 August 1944

- AXIS OF ADVANCE, 2d FRENCH ARMORED DIVISION
- AXIS OF ADVANCE, 4TH U.S. INFANTRY DIVISION
- 4TH INFANTRY DIVISION BRIDGEHEADS, 25 AUGUST
- TRACE OF PARIS DEFENSE LINE AS ORDERED ON 16 AUGUST BY GERMAN HIGH COMMAND
- RESISTANCE POINTS ENCOUNTERED BY V CORPS UNITS
- MAIN HIGHWAYS
- MAIN MULTIPLE TRACK RAILROADS

NOTE: CGO, DIVISION RESERVE OF 2d FR ARMED DIV, ON THE RIGHT OF 24 AUGUST WAS IN THE VICINITY OF LONGJUMEAU.

Contour interval 50 meters

0 1 2 3 4 5
MILES
0 1 2 3 4 5
KILOMETERS



Map XVIII. 5th Corps attack of Paris, 23 - 25 August 1944.12

¹²Blumenson, Map XIV.

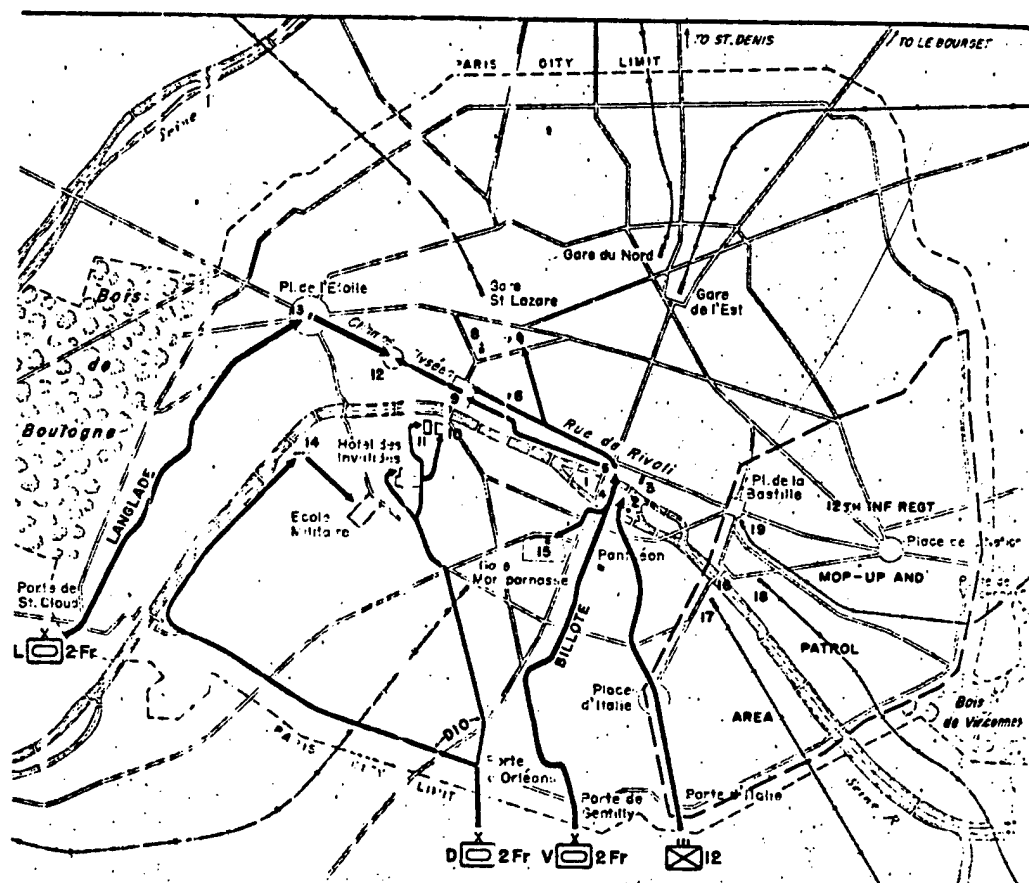
The armistice was granted and resistance leaders reported that they controlled the center of Paris and all the bridges leading into the city from the west. The Germans still held strongpoints throughout the city and the resistance fighters were reported to be short of ammunition. The resistance leaders also reported that food was so scarce that many were starving, that the sewage and subway systems were mined, and that water was short. They requested help from the Allies before the armistice ended and the Germans returned to the city to crush the rebellion.¹³

The French request for assistance was answered when 5th Corps attacked Paris in two columns (Map XVIII). The 2d French Armored Division attacked from the west, while the U.S. 4th Infantry Division was detached from 7th Corps, attached to 5th Corps, and directed to cross the Seine immediately south of the city limits. Strongpoints in Versailles, Trappes and Moudon Forest stopped the 2d French Armored Division attack on the 23d.¹⁴

Continued lack of progress by the French on the 24th caused 5th Corps to publish a letter of instruction on 25 August which assigned the 4th Infantry Division the eastern third of Paris. One regiment continued the attack to seize bridgeheads across the Seine while the remainder of the division entered the city from the south with the mission of seizing the Prefecture of Police (Map XIX). Both divisions entered the city on 25 August. The defense disintegrated on that day when General Choltitz surrendered and German strongpoints began surrendering to military personnel after token resistance. The

¹³Wilkenson, *Ibid.*, p. 198.

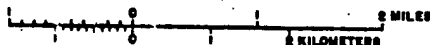
¹⁴U.S.A., V Corps, "After Action Report," August 1944 (APO 305, August 1944), pp. 5 - 7.



INTO THE CITY

25 August

- | | | | | | |
|---|-------------------------|----|-----------------------------------|----|----------------------|
| 1 | Île de la Cité | 7 | Théâtre de l'Opéra | 14 | Tour Eiffel |
| 2 | Cathédral de Notre-Dame | 8 | Eglise de la Madeleine | 15 | Palais du Luxembourg |
| 3 | Hôtel de Ville | 9 | Place de la Concorde | 16 | Pont d'Austerlitz |
| 4 | Préfecture de Police | 10 | Palais Bourbon | 17 | Gare d'Austerlitz |
| 5 | Place du Châtelet | 11 | Ministère des Affaires Etrangères | 18 | Gare de Lyon |
| 6 | Hôtel Maurice | 12 | Rond-Point des Champs Elysées | 19 | Gare de Vincennes |
| | | 13 | Arc du Triomphe | | |



Map. XIX. City map of Paris.¹⁵

¹⁵Blumenson, Map No. XVIII, p. 616.

Germans preferred to surrender to the Allied military instead of the French underground.¹⁶

The attack continued to the northeast on 27 August, and the enemy was cleared from the eastern and northern outskirts on the same day.¹⁷

Manila

Sixth Army operations against the Japanese on Luzon Island in the Philippines included landing 14th Corps on the beaches at Lingayen Bay. Early success permitted elements of the corps to advance south through a wide flat valley in the direction of Manila, the capital city of the Philippines with a population of over one million. The remainder of the corps focused operations against enemy units holding the mountains on either side of the valley. The improved tactical situation, a visit from General MacArthur, and directives from Sixth Army turned the corps commander's attention to Manila by the end of January. There was a lack of knowledge about Japanese plans for the defense of the city, and the U.S. commanders hoped that the Japanese Army would evacuate the city, as the Americans had done in 1942. Lieutenant General Oscar W. Griswold, the corps commander, directed the 37th Infantry Division and the newly attached 1st Cavalry Division to push south in zones. Progress was rapid against light resistance.¹⁸

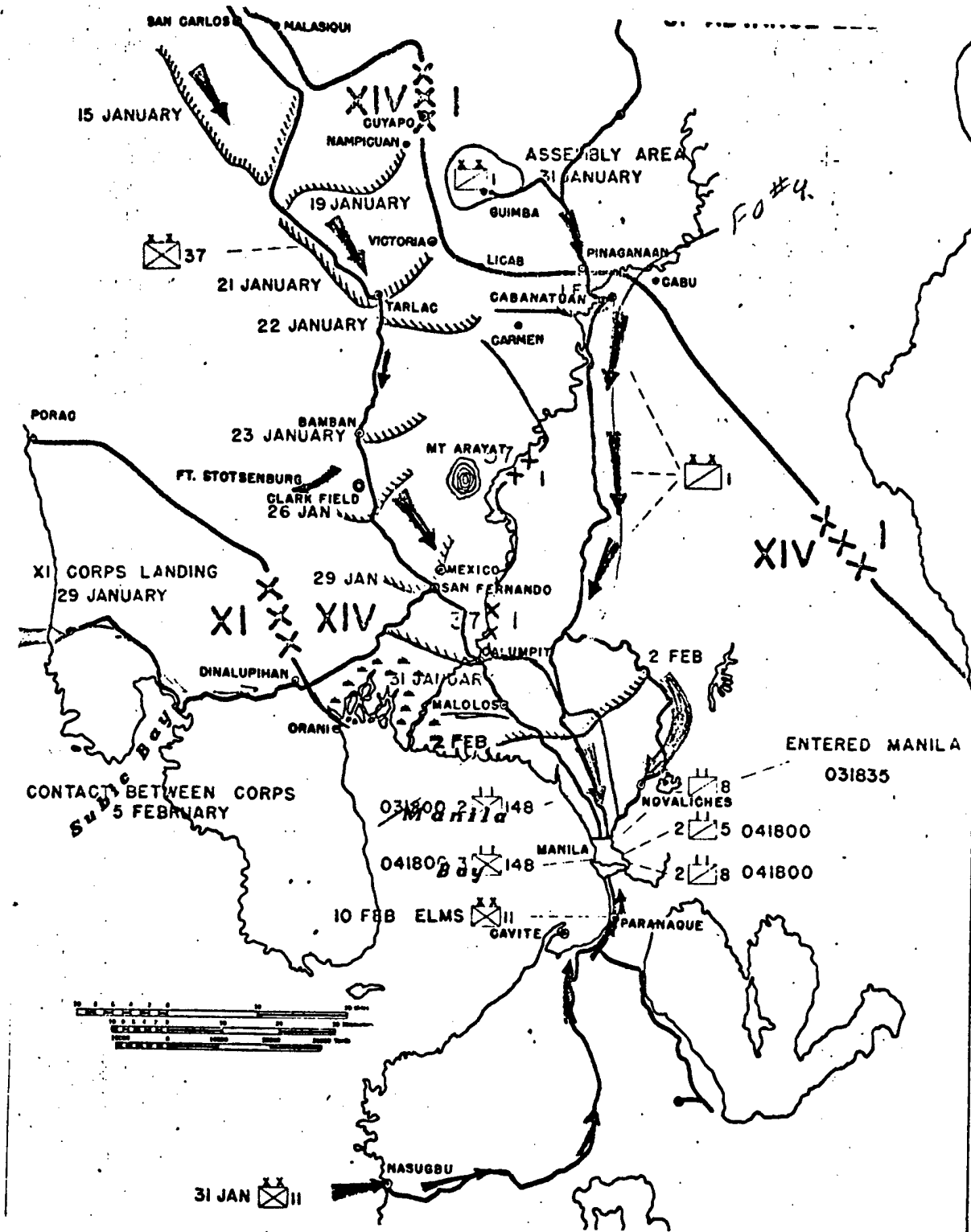
Sixth Army directed 14th Corps to secure an intermediate line between its forward positions and Manila, and to be prepared to capture Manila.¹⁹

¹⁶Wilkenson, p. 202.

¹⁷Ibid., p. 207.

¹⁸Robert R. Smith, United States Army in World War II, The War in the Pacific, Vol: Triumph in the Philippines (Washington 25, D.C.: U.S. Government Printing Office, 1963), pp. 211 - 220.

¹⁹XIV Corps, "After Action Report," p. 75.



Map XX. U.S. 14th Corps advance on Manila,
January 1945.20

20U.S.A., XIV Corps, "After Action Report, M-1 Operations," 29 July 1945, sketch 18.

Artillery fire was restricted to prevent unnecessary destruction, and special measures were taken to secure the city water supply and electric power system. A desire to free civilian internees and prisoners of war resulted in a rapid advance which by-passed resistance.²¹

The Manila operation developed so quickly that written estimates were not prepared. Higher headquarters did not believe the Japanese would defend Manila in force.²²

The Japanese Army commander, General Yamashita, initially planned to delay along the Pasig River (Map XXI), destroy military installations in Manila and withdraw into the mountains for a prolonged defense. Unfortunately for Manila, Admiral Iwabuchi was in command of Japanese forces. He decided that Manila offered excellent defensive terrain, and was determined to defend it to the last man. He forced General Yamashita to accept his plan.²³ The eventual defensive garrison in Manila included approximately twelve thousand naval and four thousand army personnel. Since these men did not belong to tactical units, they were organized into provisional units. They planned a static defense from numerous strongpoints. The defenders were limited in artillery, but they had many automatic weapons.²⁴

The outer defenses faced south. The inner defenses consisted of three elements: a center of resistance within the old walled city of Intramuros, a line of large public buildings just outside the walled city, and numerous individual strongpoints. The Pasig River formed a natural defensive

²¹Ibid., pp. 83 - 86.

²²Smith, p. 249.

²³Ibid., pp. 238 - 240.

²⁴XIV Corps, "After Action Report," p. 86.

Map XXI. Plan for the attack of Manila,
January - February 1945.²⁵

²⁵Ibid., Sketch 19.

barrier within the city itself.²⁶ The defenses were concentrated south of this barrier.

General Griswold planned to advance on Manila with the 1st Cavalry and 37th Infantry Divisions abreast and clear North Manila to the Pasig River line.²⁷ The 11th Airborne Division, under Eighth Army, approached the city from the south.²⁸ The plan was modified after North Manila was cleared and better intelligence became available. One regiment of the 37th Division attacked due south across the Pasig River while the remainder of the 37th Division and the 1st Cavalry Division crossed the Pasig River farther to the east and wheeled toward the waterfront against enemy fortifications in the Intramuros area.²⁹

The initial advance from the north was controlled with phase lines.³⁰ Apparently boundaries were the only control measures used within the city. All assault elements were attached to the 37th Division for the final attack on Intramuros.³¹

Between 30 January and 4 February, rapidly moving columns from the 1st Cavalry and 37th Infantry Divisions by-passed resistance and entered North Manila in an effort to relieve captured and interned Americans known to be held there. Fierce fighting occurred for isolated strongpoints while

²⁶ U.S.A., XIV Corps, "Japanese Defense of Cities as Exemplified by the Battle of Manila" (APO 442: A. C. of S., G-2, Headquarters, Sixth Army, 1 July 1945), p. 2.

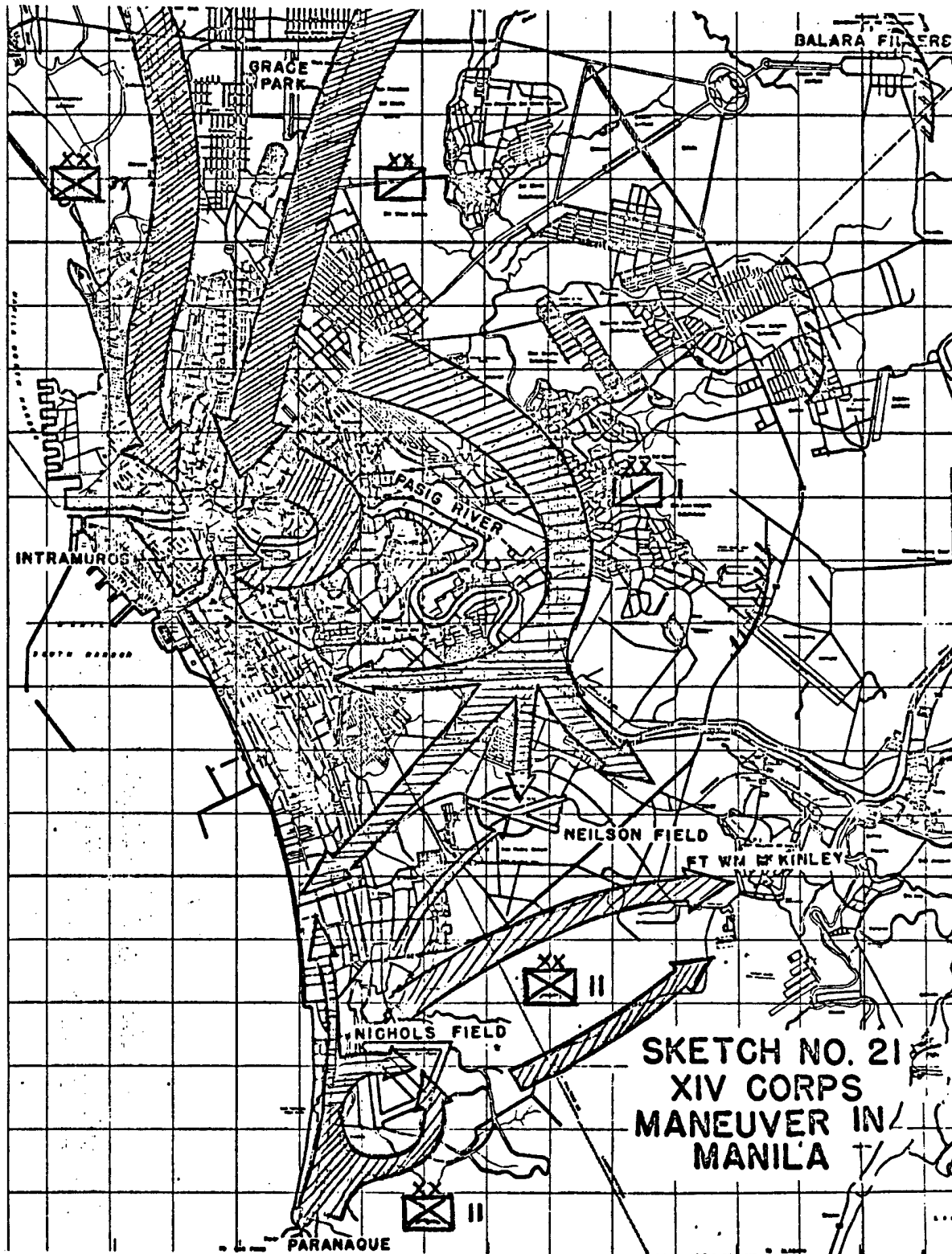
²⁷ XIV Corps, "After Action Report," p. 91.

²⁸ Ibid., p. 91.

²⁹ XIV Corps, "Japanese Defense of Cities," p. 19.

³⁰ XIV Corps, "After Action Report," p. 82.

³¹ Ibid., p. 104.



Map XXII. Maneuver of 14th Corps units in Manila,
February 1945.³²

³²XIV Corps, "After Action Report," Sketch 21.

the enemy demolished buildings with explosives and destroyed the Pasig River bridges. Fires broke out and completed the destruction of North Manila.

The 1st Cavalry Division used one regiment to secure Manila's water and power supply.³³

Isolation of the city occurred between 5 and 10 February as follows:

The 37th Infantry Division (less one regiment) moved eastward through Manila, crossed the Pasig River and attacked West toward the enemy held Intramuros. The remaining regiment of the 37th Infantry Division held the river line directly across the Pasig from Intramuros. The 1st Cavalry Division, abandoning contact with the 37th Infantry Division, executed a wide wheeling movement inland and swept into Manila from the southeast. . . . (This maneuver) permitted a very strong center of enemy resistance, the Makati Circle area, to survive for days directly between the divisions. . .³⁴

The 11th Airborne Division, which was attacking Manila from the south, was attached to 14th Corps on 10 February 1945. Contact between the 1st Cavalry and 11th Airborne Divisions occurred 11 February to complete the encirclement (Map XXII).³⁵

From 12 February until 22 February all divisions conducted operations to reduce the enemy's strongpoints and to restrict his control in the Intramuros area. Elements of the 1st Cavalry and the 11th Airborne Divisions were gradually phased out of the Manila operation.³⁶ The action here was a penetration which divided and isolated the enemy, then subsequent operations to reduce the isolated pockets. The lack of a mobile reserve prevented the Japanese from conducting a coordinated defense. The enemy's inability to counterattack facilitated U.S. operations.³⁷

³³Ibid., p. 85.

³⁴XIV Corps, "Japanese Defense of Cities," p. 20.

³⁵XIV Corps, "After Action Report," p. 92.

³⁶Ibid., pp. 90 - 114.

³⁷XIV Corps, "Japanese Defense of Cities," p. 20.

The reduction of the inner city took from 23 February until 3 March.

One brigade of the 1st Cavalry Division, a tank destroyer battalion, and a tank company were attached to the 37th Infantry Division for the final assault on the inner city of Intramuros. The 37th Division planned to follow a sixty minute artillery preparation with simultaneous amphibious and land assaults on the northwest corner of Intramuros



Map XXIII. Investment of Intramuros,
23 February - 3 March 1945.³⁸

Direct fire from artillery and tank destroyers was used to breach the walls, and smoke and artillery were used to screen enemy observation and seal off the assault area. The two assault forces made contact, then deployed to reduce defenses

³⁸XIV Corps, "After Action Report," Sketch-27.

as indicated on Map XXIII. The 1st Cavalry Brigade continued its advance along the waterfront.³⁹

Three U.S. divisions required nearly a month to destroy the defenders of Manila. The Japanese lost 16,665 killed,⁴⁰ while the Americans lost 1,010 killed and 5,565 wounded.⁴¹ The attack from the north caught the defenders by surprise and permitted the attacker to enter the city without serious opposition. The defensive force was fanatical, poorly trained, poorly led, and lacked adequate communications. Despite a lack of initial planning and intelligence, the conduct of the attack was sound. Some of the recommendations in a 14th Corps report are:

In this report, it is believed that by-passing too many strong isolated Japanese centers of resistance is a mistake, as the number of troops necessary to contain the Japanese will far exceed the number of Japanese contained. When Japanese forces are deployed in rigid defense, it is considered advisable to destroy all enemy as the attack progresses. When it is advisable to by-pass centers of resistance, such centers of resistance should be reduced immediately, employing available reserves. If sufficient reserves are not immediately available, progress of the attack should be controlled by phase lines until strong points are eliminated.

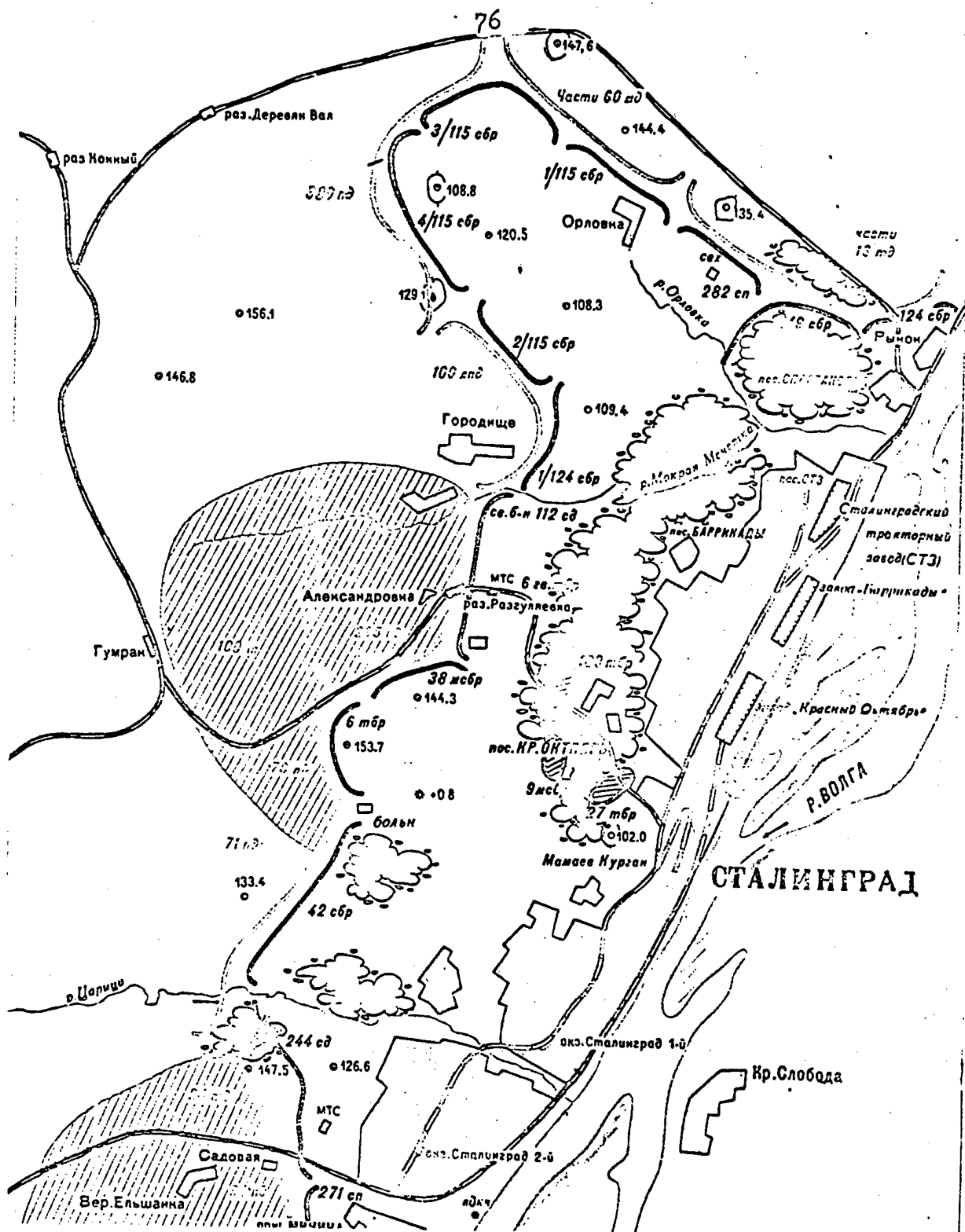
. . . The fighting which resulted in the destruction of these defenses and the final elimination of enemy resistance in Manila was in reality that which characterizes the attack of a fortified locality, and for discussion may be divided into three categories, namely normal fighting in city streets, the reduction of strong earthquake proof buildings, and the attack upon the Walled City (Intramuros). The fighting did not fall together chronologically into these categories, as several strong enemy-held buildings were contained and by-passed to permit the assault upon Intramuros, and within Intramuros itself normal fighting was resumed.⁴²

³⁹ 37th Infantry Division, "Field Order No. 30," 22 February 1945, pp. 1 - 3.

⁴⁰ XIV Corps, "After Action Report," p. 135.

⁴¹ Smith, p. 307.

⁴² XIV Corps, "Japanese Defense of Cities," p. 20.

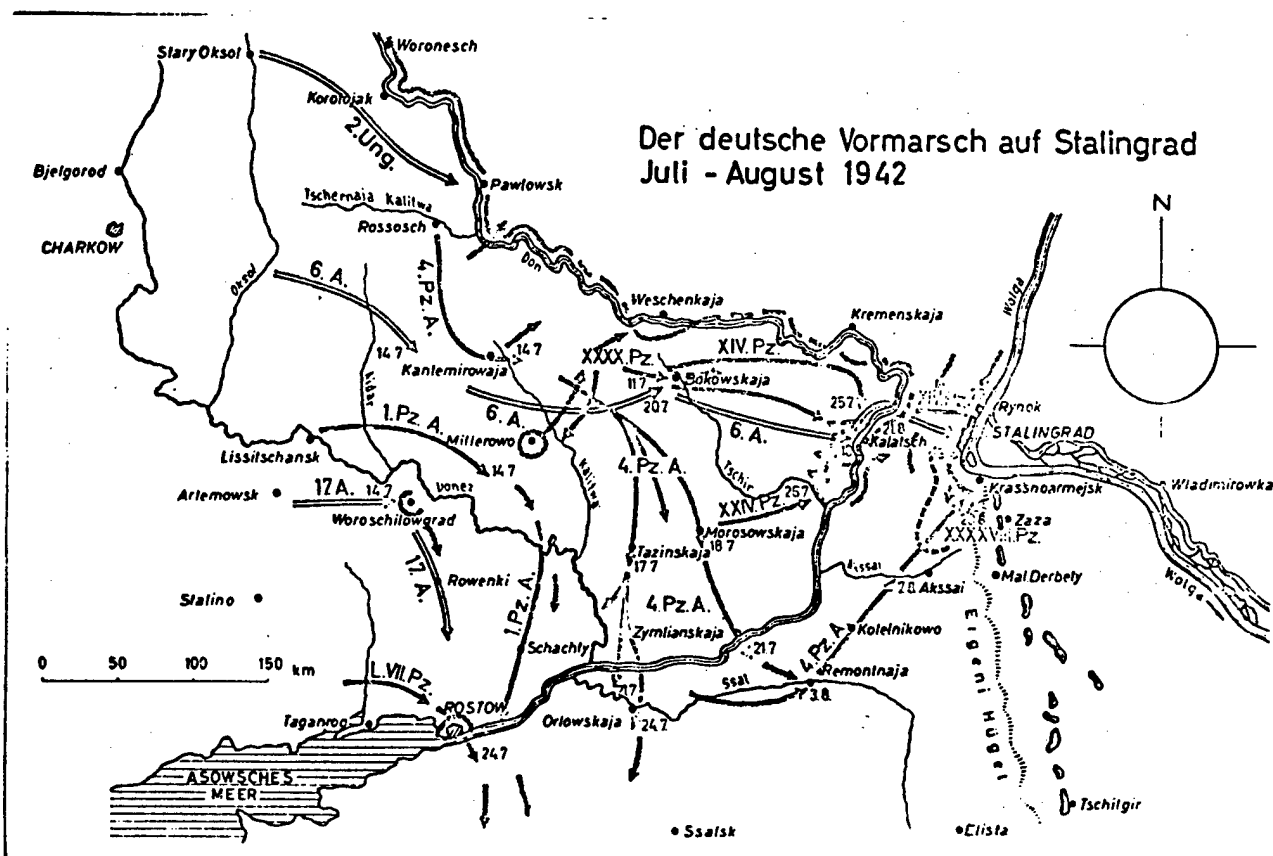


Map XXIV. German attack of Stalingrad,
September - November 1942.⁴³

⁴³Heinz Schroter, Stalingrad, translated by Constantine Fitzgibbon (New York: E. P. Dutton & Company, Inc., 1958), Sketch 6.

Accounts of the battle are accounts of battalions, companies, and smaller units reducing strongpoints. Discussions of combat techniques indicate a need for special training and rehearsals. Such training would enable the assault elements to act as a team when they come in close contact with the enemy as they enter and fight through a strongpoint.

Stalingrad

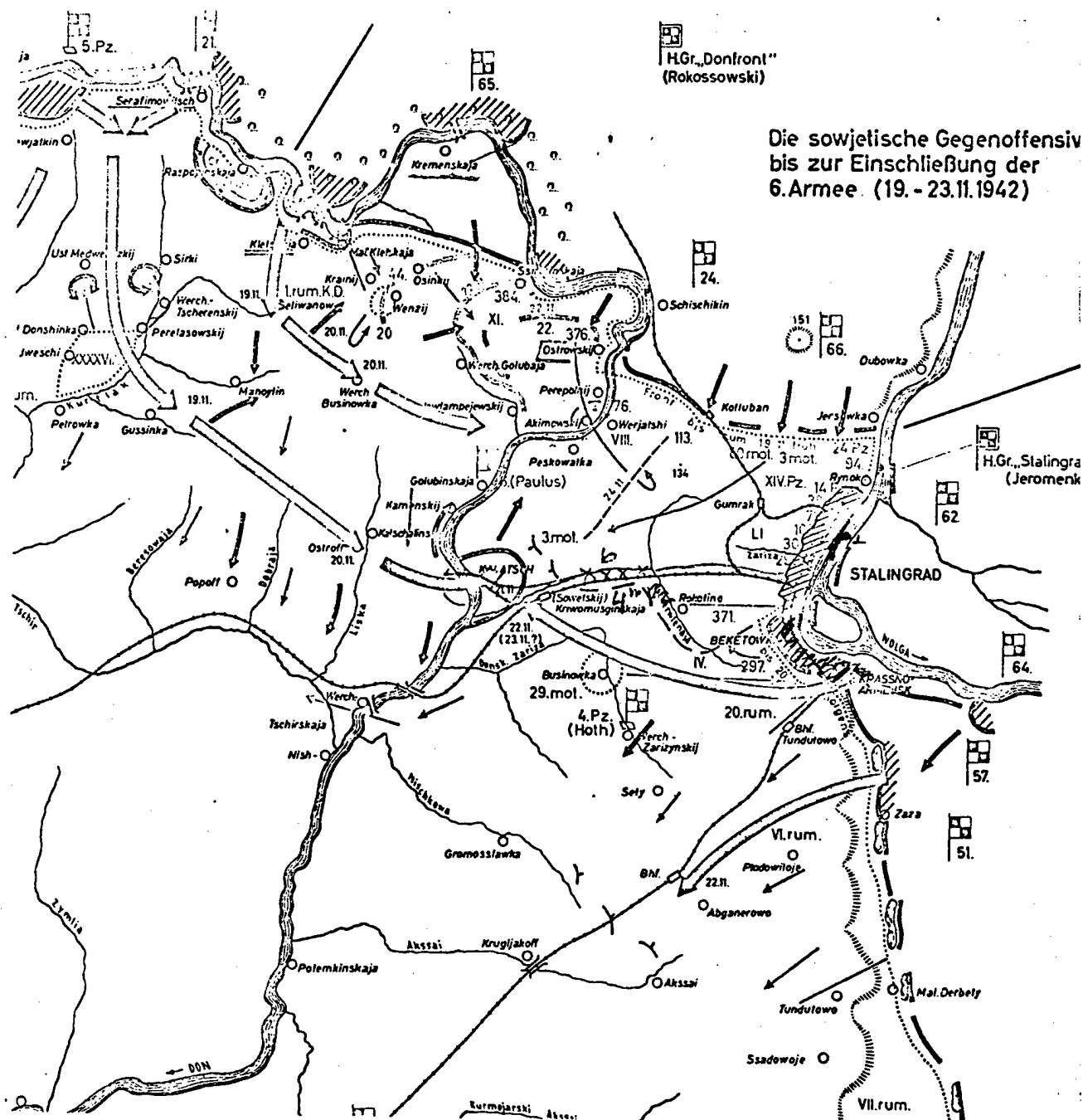


Map XXV. German advance to Stalingrad,
July - August 1942.⁴⁴

The battle of Stalingrad began with German attempts to seize the city in August 1942 using the Sixth Army and the Fourth Panzer Army (Map XXV). Although the 14th Panzer Corps quickly reached the Volga River on the northern

⁴⁴Ibid., Sketch 5.

H.Gr., Stalingra
(Jeromenk



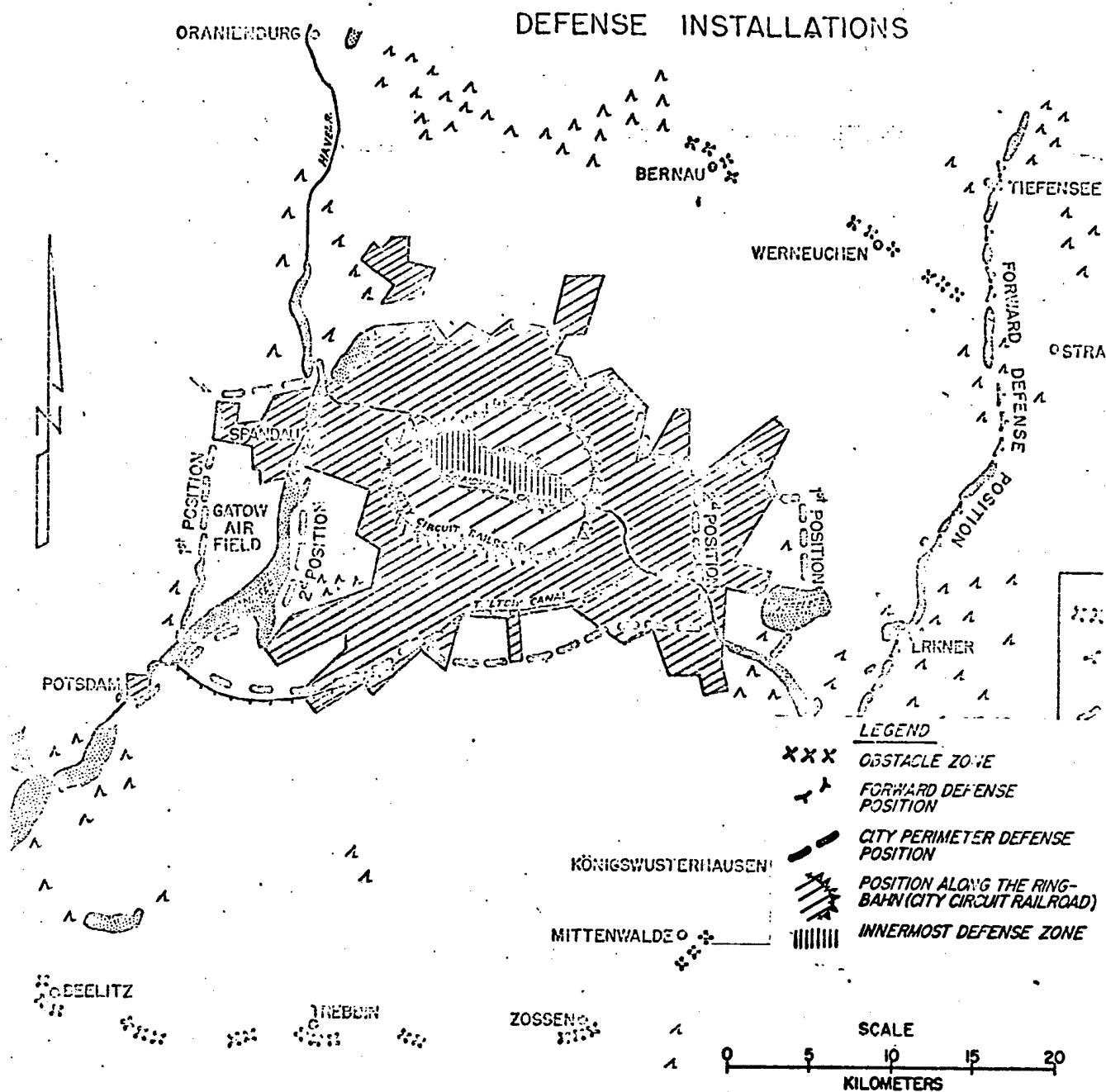
Map. XXVI. Soviet attacks to isolate the Sixth German Army between the Volga and Don Rivers, November 1942.⁴⁵

outskirts of the city, they did not cross the river and the city never was effectively isolated. Frontal assaults on the defenses continued through August, September, and the first half of November in an effort to divide the defenders and clear the city. The defenders were compressed into a tight ring, then into a thin strip along the west bank of the Volga. More and more troops were poured into the battle as units became depleted by continuous attacks against the "fortress of Stalingrad." The German attacks never succeeded in clearing the west bank of the Volga within the city although special engineer assault teams did reach the banks in the center of the city and divide the defenders into four narrow bridgeheads (Map XXIV). The German efforts to take the city cost a reported sixty thousand men, five hundred tanks, and the services of nineteen or twenty divisions which were committed in the battle by 1 November. While the attacks by depleted German units continued, the Soviets built up decisive new forces on the flanks of the German salient. In November, German intelligence estimated that the Soviets had fifty-seven divisions in the area of the battle. Yet, while disaster in the form of overwhelming Soviet combat power threatened, Hitler ordered the attack continued.⁴⁶

Soviet counterattacks against the flanks of the German salient began on 19 November (Map XXVI), and within five days the German attackers of Stalingrad were surrounded. In December, Hitler ordered the German Sixth Army to stand fast while efforts were made to break through to their relief, but by 1 January the German high command gave up all hope of relieving the now desperate Sixth Army.

The final phase of the battle of Stalingrad consisted of Soviet operations to divide the defenders and compress them into small pockets, and

⁴⁶About nine German divisions were committed in the city. About ten divisions were holding the flanks of the German salient between the Don and Volga Rivers.



Map XXVII. German plan for the defense of Berlin.⁴⁷

⁴⁷ Wilhelm Willener, Oberst A. D., "MS #P-136, The German Defense of Berlin," translated by R. D. Young, (Historical Division, United States Army Europe, 1953), Sketch 3.

finally, to destroy the discouraged, poorly equipped, and isolated remnants of sixteen German divisions.⁴⁸

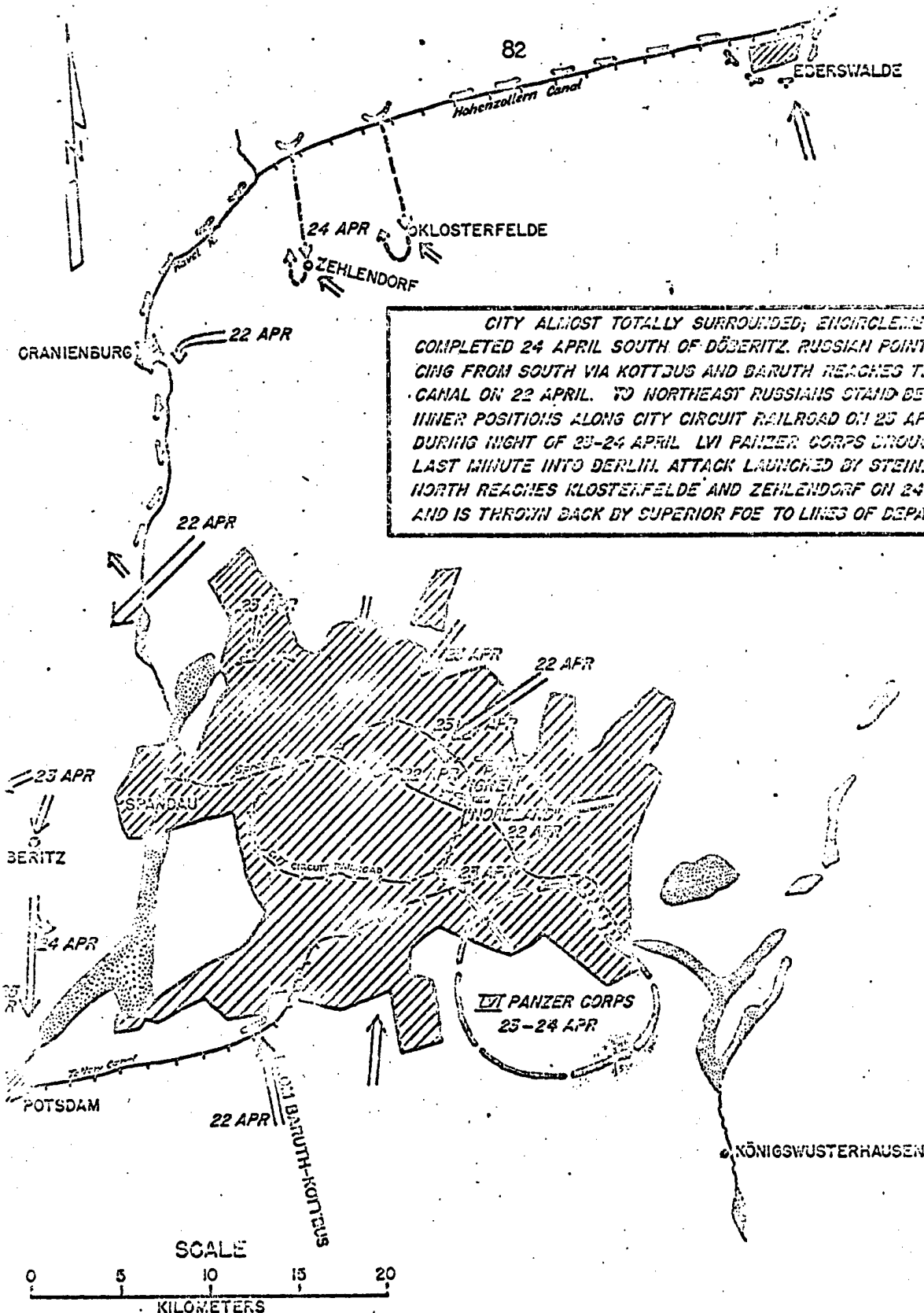
It is doubtful if the Germans had sufficient combat power to seize the city of Stalingrad after 25 August. Although the Germans considered the city isolated when they reached the Volga on 24 August, the Soviets continued to reinforce the defenders from across the river, and provided artillery support from this haven. The final act which sealed the German's destruction was continuation of the attack after the enemy had massed decisive combat power on the flanks of the long salient which led west from Stalingrad.

Berlin

Berlin, with a population of over three million, was designated as a fortress city but measures to implement its defense were only partially carried out. Map XXVII shows the defensive plan which was only partially completed when Marshal Zhukov's First Byelorussian Front of a million men attacked. A defensive force of at most five hundred and fifty thousand Germans, mostly second rate troops, defended the city. Zhukov's eight to ten infantry and two to three tank armies (each equivalent to a U.S. corps) quickly by-passed Berlin on the north and south, and the city was isolated by 24 April (Map XXVIII).

While the encircling forces continued their attacks, other Soviet units penetrated into the city from all sides. The Soviets used a street by street method of advance which insured maximum destruction to the city and

⁴⁸Department of Military Art and Engineering, U.S.M.A., The War in Eastern Europe (West Point, N.Y.: U.S. Military Academy Adjutant General, 1949), p. 83.



Map XXVIII. Soviet attack on Berlin, April 1945.⁴⁹

many deaths among the civilian population. The last resistance was cleared by 2 May.⁵⁰

⁵⁰Willemer, p. 1 - 65.

SUMMARY OF ATTACK ON MEGALOPOLIS

	<u>Time required</u>	<u>Relative Attacker</u>	<u>Combat Power Defender</u>	<u>Population</u>
<u>Paris</u>	3 days	1 inf. div., 1 armored div.	20,000 men, mixed combat and service units.	Over 2 million; active French paramilitary seized large areas in city prior to Allied attack.

Remarks: German commander planned to delay on approaches to the city, then withdraw to east to avoid isolation.

	<u>Time required</u>	<u>Relative Attacker</u>	<u>Combat Power Defender</u>	<u>Population</u>
<u>Manila</u>	27 days	3 divisions	16,000 naval and army service troops organized into provisional units.	Over 1 million; sympathetic, sometimes active support of attacker.

Remarks: Static defense conducted in city south of Pasig River by predominantly naval and army service troops to obtain maximum delay. Defenders fought to the bitter end.

	<u>Time required</u>	<u>Relative Attacker</u>	<u>Combat Power Defender</u>	<u>Population</u>
<u>Stalin- grad</u>	87 days	Maximum of 9 divisions.	Probably elements of 2 reinforced combined arms armies and para- military forces in city proper.	Many well indoctrinated and actively participating citizens.

Remarks: Unusual circumstances make this a poor example. The Germans never isolated the city. Their frontal attacks against prepared defenses in rubble of city made slow and costly progress until superior Soviet forces counterattacked on the north and south, flanking a long German salient which led to Stalingrad. The attack isolated the German assault forces, who were exhausted physically and logistically by battles in the surrounding terrain before the Soviets retook the entire city.

	<u>Time required</u>	<u>Relative Combat Attacker</u>	<u>Power Defender</u>	<u>Population</u>
<u>Berlin</u>	9 days from iso- lation to capitula- tion.	Elements of 8 to 10 inf. and 2 to 3 tank armies.	550,000 men including one regular corps, mostly second line troops.	Over 3 million; probably some fanatical, many hopeless.

Remarks: A planned defense was only partially completed at the time of attack. The Germans had no hope for success by this time.

CHAPTER V

SUMMARY OF HISTORICAL EXAMPLES

This study of corps operations indicates that the requirement to seize a city occurs frequently in corps and division operations. The examples cited in this paper are only a few of the many cities which were designated as objectives by corps commanders during World War II. The following comments are the result of specific observations made during this study.

The time and combat power required to isolate and clear a city depend upon the quality and type of forces committed to the defense of the city, the type of fortifications around the city, the accessibility of the city's flanks, and the attitude of the civilian population.

A division usually requires two or three days to clear a small, lightly defended city such as those described in Chapter I. A successful attack on a larger, better fortified city requires more extensive preparation, more combat power, and more time. If the defender elects to fight to the end in the city, he may hold out for weeks after it has been isolated.

More time and combat power are required to attack a city whose flanks are secured. Some of the most difficult fighting during the attacks on Brest and Aachen occurred on the approaches to the city during attempts to gain or deny access to the built-up area.

Unless a friendly population actively assists the attacker, the battle for a megalopolis usually requires more troop units than the corps has available, and the attack of such a large city may last for weeks. The

influence of paramilitary forces and a large militant population has been described in the accounts of the battles of Stalingrad, Paris, and Berlin.

The battles of Metz, Brest, Stalingrad, and Manila demonstrate the time and combat power needed to seize a strongly defended city.

The battles of Yuhnov, Metz, and Stalingrad illustrate the results of failure to isolate the city and defeat relief attacks.

The selection of key terrain, avenues of approach, and objectives will be discussed in the following paragraphs.

The city hall, railroad station, arsenal, and forts at Cherbourg, the University, government buildings, and communication centers in Manila, the city wall in Brest, the factories in Stalingrad, the river bridges in Vitebsk and Paris, the park and adjacent buildings in Aachen -- each of these features could have been critical if the enemy had successfully defended it. Consequently, such features should be considered when selecting key terrain within the built-up area.

The exploitation of avenues of approach on the flanks and rear of the enemy is always desirable, and especially during the attack of a city. The relatively quick success during the battles of Le Mans, Kharkov, and Paris demonstrate how the defender is often overextended when he attempts to cover all the approaches to a city. Exploitation of a quick success on one avenue of approach may result in seizure of key terrain in the depths of the enemy defenses which will force him to abandon his positions or accept defeat in detail. The defender withdrew when faced with such situations during the battles for Vitebsk, Kharkov, Paris, and Metz.

Accurate and detailed knowledge of the enemy strength and positions, to include current photographic coverage, are essential. Accurate intelligence permitted the Soviets to conduct rehearsals using mock-ups of the German

positions before their final attack on Vitebsk. More accurate information on the strength of the defenses at Brest might have resulted in a cheaper victory there. Since the corps has better intelligence collection and evaluation means than the division, the corps must exert every effort to obtain detailed and accurate information for the assault forces. Command emphasis on the collection and dissemination of intelligence will result in quicker and less costly victories.

The preceding items require direct corps action. The following principles apply more directly to the assault elements of the attack; however, they are important to corps doctrine because the corps staff should ensure that subordinate units' operations reflect these principles.

Organization for combat should provide for battalion and company combined arms teams to include, when appropriate, armor and fire control personnel for naval and air support. Medium and heavy caliber artillery should be provided to assault units for direct fire on enemy strongpoints. The assault forces should conduct training and rehearsals in the special techniques used for the assault of fortified and built-up areas.

The concept of maneuver should provide close control over forces deployed in the built-up area. Provision should be made for exploitation of enemy weaknesses. If a deep penetration is envisioned, forces should be provided to secure the flanks of the penetrating force and destroy by-passed strongpoints, as recommended in the after action report of the battle of Manila. Control should be decentralized during the conduct of the attack, but care must be exercised that units do not fire upon one another while they are in the built-up area.

In addition to the normal fire support plans, provision should be made for direct fire by medium and heavy caliber artillery to destroy well-

constructed buildings and pillboxes. Since the rubble which results from air and artillery preparations provides excellent defensive positions and effective cover from indirect fire is readily available, air and artillery preparations are not as effective as might be expected. Despite this, experience has shown that massive air and artillery preparations have a detrimental effect on enemy combat efficiency. Preparations should be followed up quickly by a ground assault.

Logistical considerations should include anticipated heavy artillery ammunition expenditures, provision of special items of equipment in time for troop training, and support requirements for the civilian population.

In summary, the highest headquarters concerned in the planning of the attack of a city must direct the efforts of all units along selected avenues of approach to (1) defeat enemy forces on the flanks of the city and isolate the defenders, (2) seize terrain which denies the enemy commander the ability to shift his forces, (3) seize control of or penetrate features which provide fields of fire and observation to major elements of the defensive force, and (4) provide for control and survival of the civilian population and military support facilities of the city. Deep penetrations require that sufficient combat power be available to protect the flanks and rear of the penetrating force. Accurate and detailed intelligence must be sought and disseminated at all levels of command, with emphasis from the corps and army level.

This summary completes the study of historical examples. Part II of this study is a consolidation of current doctrine for the attack of a city, and Part III is a consolidation of the ideas contained in Parts I and II in the form of a proposed doctrine for corps operations in the attack of a city.

PART II

DOCTRINE

Part II of this paper is an examination of current doctrines.

United States Army doctrine is contained in three field manuals:

Field Manual 31-50, Combat in Fortified Areas and Towns.

Field Manual 61-100, The Division.

Field Manual 100-5, Field Service Regulations, Operations.

The doctrine is interpreted and expanded by material published at the Command and General Staff College and The Infantry School.

The extensive quotations at the beginning of each subsection in this part are a consolidation of the pertinent material contained in United States Army doctrine. If the available Soviet doctrine differs from the United States Army doctrine, this difference is commented upon in the appropriate subsection. These comments are followed by conclusions drawn in Part I to this paper when these conclusions indicate a modification to current doctrine.

Appendix II contains comments on the German Army's concept of the role of cities in modern warfare, as described by a German officer who served with General Guderian's Armored Corps in 1941, in North Africa in 1943, and who is currently an officer of the Army of the Federal Republic of Germany.

CHAPTER VI

THE DECISION

The Mission

The final objective of the attacking force in a city or town is the seizure of the entire built-up area.¹

. . . Terrain dominating the approaches is seized to isolate the town. . . . Objectives within the built-up area are selected to divide the enemy defense.²

The main attack may be directed toward a critical area³ or the commander may attack with equally weighted forces.⁴

A restatement of this doctrine might read as follows: The mission may include the major tasks of isolating the city (objective), penetrating into the city and dividing the defenders, and clearing isolated enemy strongpoints to complete the destruction of the enemy forces. When there is a main attack, its objective should be to seize key features, missions which require the effort of a major subordinate unit of the attacking force.⁵

¹U.S.A., Headquarters, Department of the Army, FM 31-50, Combat in Fortified Areas and Towns (Washington 25, D.C.: U.S. Government Printing Office, 1952), p. 56.

²U.S.A., Headquarters, Department of the Army, FM 61-100, The Division (Washington 25, D.C.: U.S. Government Printing Office, January 1962), p. 229.

³See page 94 for definition of critical area.

⁴U.S.A., Infantry School, FM 31-50, Combat in Fortified and Built-up Areas (draft manuscript), (Fort Benning, Georgia: U.S. Army Infantry School, November 1962), p. 34.

⁵Ibid.

Commanders at all levels must make provisions to defeat enemy relief and breakout attempts, and units at all echelons must be prepared to defeat counterattacks immediately after they seize a critical piece of terrain or key building.⁶

Phasing

Phase I of the attack is designed to isolate the city by seizing terrain features which dominate approaches to the city. The attacker secures positions outside the built-up area from which to support the entrance to it and the step-by-step capture of the objectives.⁷

Phase II consists of the advance of the assault forces to the built-up area and the seizure of some buildings on the near edge of the town. This reduces or eliminates the defender's ground observation and direct fire on the attacker's approaches to the town. The attacker uses the cover and concealment afforded by these buildings in the foothold area to decentralize control and displace weapons forward.⁸

Phase III is the systematic house-by-house, block-by-block advance through the built-up area. While doing this, particular attention must be paid to maintaining control of the units. Plans are made to insure that each building is thoroughly searched, that units have adequate means of communications, and that prompt resupply can be effected.⁹

The Soviets consider two phases in their doctrine. The first is a surprise attack from the march formation. Should the surprise attack fail, Soviet doctrine states that the city should be "surrounded and blockaded. It is then to be captured by direct assault."¹⁰

⁶The Soviets also stress the need to repel counterattacks, and they teach that the attacking formations should "go straight for the heart of the city to capture key objectives such as telephone centers, bridges, government buildings, and other important features." (DA Pamphlet 30-50-1, p. 42.)

⁷U.S.A., FM 31-50, pp. 76 and 77.

⁸Ibid., p. 77.

⁹Ibid.

¹⁰DA Pamphlet 30-50-1, p. 42.

From the corps level, it seems appropriate to consider the first phase as a quickly delivered surprise attack to gain key features in the city while executing simultaneous encircling maneuvers. If this surprise attack is not completely successful, second and third phases become necessary. The second phase is concluded when the enemy mobile forces are defeated and the city is effectively isolated on the ground. The third phase, which may be initiated before the second phase is completed, is an assault on the city from the flanks and rear.

Characteristics of Area of Operations

The commander should use the characteristics of the area of operations to control the battle and develop the full force of his combat power.¹¹

Unusual characteristics of terrain, civilian population and enemy situation require unusual emphasis in the estimate of the situation.¹²

. . . The defender attempts to select towns for defense whose strategic or political importance will force the attacker to try to capture them in order to further his over-all plans. In this case, the attacker must seize the terrain which dominates the approaches to the town before attempting to capture it.¹³

Built-up areas may become battle areas because their locations control routes of movement or because they contain valuable industrial or political installations.¹⁴

Built-up areas containing solid masonry or concrete and steel structures modified for defense purposes resemble fortified areas. They consist primarily of cities containing blocklike construction or those areas

¹¹U.S.A., Headquarters, Department of the Army, FM 100-5, Field Service Regulations, Operations (Washington 25, D.C.: U.S. Government Printing Office, 1962), pp. 48 and 49.

¹²U.S.A. Command and General Staff College, "Manuscript 6430/4, Infantry Division Attack of Built-up Areas and Fortified Positions, Lesson Plan" (Fort Leavenworth, Kansas: U.S. Army Command and General Staff College, 1963), p. LP-5.

¹³U.S.A., FM 31-50, p. 53.

¹⁴Ibid., p. 34.

consisting of large complexes of industrial structures. . . . When practicable built-up areas are bypassed and isolated. If they must be reduced, methods applicable to reduction of fortified areas are employed.¹⁵

. . . Extensive subterranean systems may provide the defender with additional protection. Built-up areas reduced to rubble retain their defensive characteristics and restrict the use of motorized or mechanized forces. Fighting in built-up areas is characterized by close combat, limited fields of fire and observation, canalization of vehicular movements, and difficulty in control of troops.¹⁶

Military control of essential utilities is a necessity.¹⁷

Joint intelligence studies, aerial photographs, and town plans provide detailed information.¹⁸

Wire and foot communications to platoon level are desirable because of interference with radio communications from buildings.¹⁹

The Infantry School defines critical areas, isolated housing areas, and key terrain with cities as follows:

Critical areas are those areas in a built-up area that may require special coordination and effort to overcome. Open areas between buildings, superhighways, avenues, railroads, and other terrain features which provide the enemy an advantage in observation and fire may become critical areas. Buildings bordering these terrain features are included in the critical area.²⁰

Key terrain in built-up areas includes strongly constructed buildings or groups of buildings which cover good avenues of approach, bridges, and hubs of underground sewage and subway systems.²¹

In summary, unusual characteristics of the terrain and the dense population require unusual emphasis on the estimate of the situation. If

¹⁵U.S.A., FM 100-5, pp. 89 and 90.

¹⁶Ibid., p. 90.

¹⁷U.S.A., FM 31-50, p. 71.

¹⁸Ibid., p. 57.

¹⁹U.S.A., FM 31-50, p. 54.

²⁰The Infantry School, p. 34.

²¹Ibid.

the city does not fall to the initial attack, the commander should carefully analyze all available intelligence before he selects the time and place of subsequent attacks.

Cities offer excellent cover and concealment, poor observation, and limited avenues of approach. Obstacles can be constructed easily from materials available. Key terrain includes well constructed buildings and structures which control open areas within the city. Communications features such as bridges, road centers, and rail and subway hubs are key. Possession of government buildings is desirable and possession of utilities is essential for the public welfare. Mass communication media will assist in controlling the public.

Avenues of approach may include broad boulevards and other open areas, but the attacker will often be forced to advance without clearly defined avenues of approach. The best avenues of approach are on the flanks and rear of the city, and may consist only of those sectors in which the best progress is made.

Relative Combat Power

. . . The advantages for the attacker are the inflexible nature of the defense, the choice of the time and location of the attack, and the ability to obtain progressively better information of the defender than the defender can obtain of the attacker.²²

The defense of a built-up area should be organized around key features whose retention preserves the integrity of the defense and permits the defender to move readily. . . . A built-up area is primarily an obstacle to the attacker but may also be an obstacle to the defender in counterattack operations.

. . . consideration should be given to defending outside the built-up area. Defense of a built-up area must provide for a reserve of

²²U.S.A., FM 31-50, Change 1, 1954, pp. 1 and 2. This passage refers specifically to fortified areas, but can also be applied to the attack of a city.

maneuver elements and fire support to counter enemy action within the built-up area and on the dominating terrain outside the area.²³

. . . Where practicable, friendly inhabitants are integrated into the defense force. . . . If they are placed in a strong position, they can stop forces of a superior military training.²⁴

If the commander does not have sufficient force to isolate the city, it is doubtful that he will be able to seize it. The losses which will occur during the attack must be weighed against the forces which will be required to contain the by-passed enemy. General experience has been that it is necessary to seize a city if the enemy decides to defend it.

In assessing relative combat power, the commander should seek to take advantage of his superior mobility to mass against the weak points of the defense and penetrate to divide the defenders. The attitude of the civilian population must be considered when determining the relative combat power of the opposing forces.

Nuclear Weapons

. . . Built-up areas may be untenable because of their susceptibility to neutralization or destruction by conventional or nuclear munitions.

. . . In the nuclear environment the advantages gained through the use of nuclear weapons must be weighed against the creation of obstacles to the assault force.²⁵

. . . Plans should be made for using subterranean systems as a means of defense against nuclear attack.

The advantages gained through the use of nuclear weapons and intense nonnuclear bombardments must be weighed against the creation of obstacles to the assault elements.²⁶

²³U.S.A., FM 100-5, p. 90.

²⁴U.S.A., FM 31-50, pp. 71 and 72.

²⁵U.S.A., FM 100-5, p. 90.

²⁶U.S.A., FM 61-100, p. 229.

. . . In employing nuclear weapons, the effect on the civilian population must be considered and plans made for their (civilian) control and evacuation.²⁷

The Infantry School and the Command and General Staff College agree that nuclear weapons will not always solve the problem of the attack of a built-up area. The following extracts illustrate their positions:

Need to minimize civilian casualties influences employment of nuclear, chemical, and biological weapons.²⁸

Nuclear weapons are not likely to be employed in conjunction with a ground attack of a built-up area because of the casualties which would be inflicted on civilian populations, especially in friendly territory.²⁹

The decision to employ nuclear, lethal chemicals, and biological weapons is greatly influenced by . . . the existence of buildings and other installations which could be used later by our forces or by the civilian population.³⁰

. . . Nuclear weapons do not make the attack of a fortified position as easy as first appearances might suggest.

Use of small yield air-burst weapons may not produce the desired results;³¹ yet, use of larger weapons creates a troop safety factor which may be such that full advantage cannot be taken of the results produced.

Destruction of the fortified buildings usually requires a surface burst. This too causes problems because a direct hit or 'near miss' is required to do the job. Radiological contamination accompanying such a burst is a serious problem.

From all this we can say air-burst weapons are best for fighting bunkers and surface-burst weapons are best for installations, such as CP's, which may be completely underground.³²

²⁷U.S.A., FM 100-5, p. 90.

²⁸Command and General Staff College, p. LP-5.

²⁹The Infantry School, p. 47.

³⁰Command and General Staff College, p. LP2-27.

³¹This conclusion is based upon an analysis of the probable error inherent in the available delivery means and the radius of damage against concrete protected targets. Note that it applies directly to a fortified position.

³²The Infantry School, p. 34.

The concentration of troops and the time required to seize a city make the attacker vulnerable to nuclear, chemical, and biological weapons.³³

International law may have an influence upon the decision to use mass casualty weapons. Department of the Army doctrine is contained in Field Manual 27-10, The Law of Land Warfare.³⁴ The following extracts are pertinent:

. . . the treaty provisions quoted herein will be strictly observed and enforced by United States forces without regard to whether they are legally binding upon this country. . . .

. . . it is a generally recognized rule of international law that civilians must not be made the object of attack directed exclusively against them. . . .

'It is especially forbidden . . . to declare that no quarter will be given.' . . .

The means (of injuring the enemy) are definitely restricted by declarations and conventions and by the laws and usages of war. . . .

The use of explosive 'atomic weapons,' whether by air, sea, or land forces, cannot as such be regarded as violative of international law in the absence of any customary rule of international law or international convention restricting their employment. . . .

'It is especially forbidden . . . to employ poison or poisoned weapons.'

'The attack or bombardment, by whatever means, of towns, villages, dwellings, or buildings which are undefended is prohibited.'

Factories producing munitions and military supplies, military camps, warehouses storing munitions and military supplies, ports and railroads being used for the transportation of military supplies, and other places devoted to the support of military operations or the accommodation of troops may also be attacked and bombarded even though they are not defended.

. . . loss of life and damage to property must not be out of proportion to the military advantage to be gained. . . .

³³The Infantry School, p. 34.

³⁴U.S.A., Department of the Army, FM 27-10, The Law of Land Warfare (Washington 25, D.C.: U.S. Government Printing Office, 1956), pp. 7 - 21.

In sieges and bombardments all necessary measures must be taken to spare, as far as possible, buildings dedicated to religion, art, science, or charitable purposes, historic monuments, hospitals, and places where the sick and wounded are collected, provided they are not being used at the time for military purposes.

Ex-President Harry S. Truman said that the nuclear weapon is no different than any other artillery piece in its application, it simply has more punch and range. He estimated that the use of nuclear weapons in Hiroshima and Nagasaki saved 250,000 U.S. soldiers. In his mind, this completely justified the use of nuclear weapons on these enemy cities.³⁵

In summary, the most efficient way to destroy a city is to use chemical, biological, or nuclear weapons. Chemical and biological attack minimize destruction, but they are likely to produce a higher percentage of casualties among unprotected civilians than among the military garrison. Large nuclear weapons will accomplish the mission of destroying the enemy garrison, but will also destroy the civilian population and military facilities. The use of CBR and nuclear weapons may be limited by international law.

The commander who uses mass casualty-producing weapons is subject to the doctrine of reasonableness. That is, the decision to use these weapons must be reasonable and necessary at the time and under the circumstances in effect when the weapon is used. The concept of destroying a city is not new in warfare. The story of the destruction of Carthage in 146 B.C. is well known; 262 air raids left Cologne in ruins with less than one-tenth of its 1939 population during World War II;³⁶ the Japanese cities of Hiroshima and

³⁵Harry S. Truman, Lecture at graduation of U.S. Army Reserve School, U.S.A. Command and General Staff College, Fort Leavenworth, Kansas, 15 February 1964.

³⁶Encyclopedia Britannica, 1961 Edition, Vol. 6, p. 31.

Nagasaki were the first targets for atomic weapons.

From the preceding examples, it appears that the decision to destroy a city will normally be made at a higher level than corps. However, corps may decide to use tactical nuclear or nonnuclear weapons to destroy strong-points or induce them to surrender. If tactical nuclear weapons are used, the target analysis must be detailed and include a study of undesirable effects of the burst.

The defender's nuclear capability may prevent the attacker from concentrating the means necessary to assault a city.

CHAPTER VII

PLANNING

Logistics

Special items and supplies needed for combat in built-up areas include flame throwers, smoke grenades, grappling hooks, toggle ropes, demolitions, and ladders. This equipment should be available for the training period prior to the attack of a built-up area. Evacuation of wounded presents special problems.¹

Measures to control the civilian population are essential.² Whenever possible, civilian inhabitants are required to remain in place. Civilians must be carefully screened for escaping soldiers, spies, and fifth columnists. Large scale refugee movements toward friendly rear areas along main supply routes are prevented. Bombing and bombardment tend to drive civilians out of the city, the attack will force them back in.³

Civilian control and evacuation measures must be included in plans for the use of nuclear weapons.⁴

In conclusion, logistical support for the attack of a city must be planned well in advance. Special items of equipment should be issued in

¹U.S.A., Headquarters, Department of the Army, FM 31-50, Combat in Fortified Areas and Towns (Washington 25, D.C.: U.S. Government Printing Office 1952), pp. 56, 77, and 96.

²U.S.A., Headquarters, Department of the Army, FM 61-100, The Division (Washington 25, D.C.: U.S. Government Printing Office, January 1962), p. 229.

³U.S.A., FM 31-50, p. 56.

⁴U.S.A., Headquarters, Department of the Army, FM 100-5, Field Service Regulations, Operations (Washington 25, D.C.: U.S. Government Printing Office, 1962), p. 90.

time for the units to train for and rehearse the attack. This equipment ranges in size and complexity from toggle ropes to engineer assault vehicles. Class V requirements are high. Additional Class I and medical supplies may be necessary to prevent mass deaths and resultant disorders among the civilian population.

Arrangements must be made for civil affairs personnel. Immediate control must be established over the civilian population to prevent undesirable elements from gaining control through terrorist tactics. Civilians must be screened for escaping soldiers, spies, and fifth columnists, and collaborators. Utilities and transportation must be reestablished quickly.

Training

Current doctrine provides for technical and tactical training. The training is conducted in three stages: individual, advanced, and combined.⁵ Individual training should include familiarization with the characteristics of the built-up area. Advanced training should include tactics and techniques for house-to-house fighting, use of grenades and demolitions, techniques of fire, and familiarization with booby traps. Troops should be indoctrinated to prevent looting and mistreatment of civilians. Combined training should include tank-infantry training, use of attached engineers, coordination of direct fire by the artillery, and use of smoke. Night combat, fire control, and control of incendiaries should be integrated into unit training.⁶

⁵U.S.A., FM 31-50, pp. 96 and 97.

⁶Ibid., pp. 55, 56, 61, 79, 96 and 97.

Concept of Maneuver

The three major tasks included in the mission were (1) isolation of the objective, (2) seizure of a foothold within the built-up area, and (3) systematic clearance of the built-up area. Isolation of the objective "is planned and conducted in the same manner as attacks in other areas."⁷ "Seizure of a foothold within the built-up area is planned and conducted the same as an attack of an organized position."⁸

(The) operation against a built-up area is a slow, painstaking process. It is often unspectacular and seldom decisive in relation to the operations of the remainder of the forces not so engaged.⁹

Large night operations are avoided.¹⁰

The unique terrain encountered within the built-up area requires special considerations and techniques. Detailed planning is necessary. The attack is characterized by semi-independent actions of battalion and smaller-sized combat teams. Progress is slow and units are frequently leapfrogged. Sections of the city and strongpoints are isolated and reduced systematically. Units must maintain all-round security and normally mop up as they advance.¹¹

When a built-up area is lightly defended, it may be desirable for leading elements to push forward rapidly to seize critical installations. In this situation, supports and reserves are given specific mopping-up missions to clear sections of the area which have been by-passed or only hastily cleared by the leading units.¹²

⁷U.S.A., FM 31-50, pp. 76 and 77.

⁸Ibid., p. 83.

⁹U.S.A., Infantry School, FM 31-50, Combat in Fortified and Built-Up Areas (draft manuscript), (Fort Benning, Georgia: U.S. Army Infantry School, November 1962), p. 37.

¹⁰Ibid.

¹¹U.S.A., FM 31-50, pp. 82-87.

¹²Ibid., p. 87.

Soviet doctrine suggests that they launch their attack under cover of darkness by infiltrating units into the city. They conceal daylight attacks with smoke and spearhead the daylight attack with tanks and assault guns. The tanks and assault guns operate on the main traffic arteries and seal off the area under infantry attack.¹³

Soviet infantry clear buildings systematically in accordance with a detailed plan. Key buildings are attacked first, especially corner buildings. As soon as the assault element clears a portion of a building, the support element rushes forward and fires from all openings on adjacent buildings which are still resisting. Immediate preparations are begun to repulse counterattacks.¹⁴

Appendix II contains comments by a German officer on the German concept of the role cities play in modern warfare. His thoughts do not differ from those expressed here.

Concept of Fire Support

Within the built-up area, mortars and howitzers use high angle fire to support attacks, block avenues of approach, and hamper enemy reserves. Direct fire weapons to include self-propelled and anti-aircraft artillery are attached to divisions for use with combat teams. Air and artillery alone do not normally neutralize enemy in a city, and the rubble from a bombardment furnishes excellent defensive positions. Close support fires are hazardous because of the proximity of ground elements with the enemy. Fires from incendiary and chemical munitions may form obstacles and disrupt plans.¹⁵

¹³DA Pamphlet 30-50-1, p. 43.

¹⁴Ibid.

¹⁵U.S.A., FM 31-50, p. 53, 78, and 80.

The Soviet attack is preceded by intensive artillery and air preparation to saturate the defenses, destroy heavy weapons, cut communications, and knock out command posts. Soviet artillery accompanies the infantry and provides direct fire support.¹⁶

Control Measures

The attack within the city is characterized by restricted observation, decentralized operations, and difficulty in control. "Objectives within the built-up area are selected to divide the enemy defense."¹⁷ Phase lines, check points, and contact points assist in control. Boundaries are drawn along the sides of streets and other avenues of communication.

Divisions assign installations such as railroad stations, telephone exchanges, and public utility works as objectives and use:

. . . cross streets, streams, and railroad lines as phase lines. Upon reaching a phase line units clear their zone before resuming the attack to the next phase line.¹⁸

Organization for combat of (the) infantry division for attack of built-up areas is influenced by need of maximum combat power forward.¹⁹

Need for close control requires all three brigades to control forces in contact, and control measures (such) as boundaries, phase lines, and direction of attack arrows.²⁰

Frontages are narrower than in open terrain.²¹

¹⁶DA Pamphlet 30-50-1, p. 43.

¹⁷U.S.A., FM 100-5, p. 90.

¹⁸U.S.A., FM 31-50, pp. 53, 76, and 83.

¹⁹U.S.A., Command and General Staff College, "Manuscript 6430/4, Infantry Division Attack of Built-up Areas and Fortified Positions, Lesson Plan" (Fort Leavenworth, Kansas: U.S. Army Command and General Staff College, 1963), p. LP-5.

²⁰Ibid.

²¹Ibid., L1-10.

Soviet doctrine provides three or four avenues of approach for each assault division. They stress consolidation and preparations to repulse counterattacks when critical features are captured. They assign individual units sectors in the city.

The Soviets map the city in detail using information collected from air photos, reconnaissance, interrogation of civilians and prisoners of war, and ground reconnaissance.²²

²²DA Pamphlet 30-50-1, p. 42.

CHAPTER VIII

CONDUCT OF THE BATTLE

There is no pause between phases in the execution of the battle.

The phases may be concurrent. Patrols search for gaps in the enemy defenses. Battalions and companies apply a combination of the techniques used for the attack of a fortified position and for street fighting. Cover and deception are used to prevent the enemy from shifting his defenses to meet the main attack.¹

Unoccupied buildings are entered first while supporting fires neutralize occupied buildings. Occupied buildings can then be attacked from the flanks and rear.²

The advance continues after seizure of a foothold to prevent the enemy from shifting combat power to the threatened area. Units clear zones and assist one another by firing into the flanks of strongly held positions. Reserves are close behind the assault echelons and provide security within the cleared area. Special equipment is used to reduce strongpoints. Weaknesses in the defense may be exploited to seize key features in the depth of the position.³

¹U.S.A., Headquarters, Department of the Army, FM 31-50, Combat in Fortified Areas and Towns (Washington 25, D.C.: U.S. Government Printing Office 1952), Change 2, p. 5.

²U.S.A., Command and General Staff College, "Manuscript 6430/4, Infantry Division Attack of Built-up Areas and Fortified Positions, Lesson Plan" (Fort Leavenworth, Kansas: U.S. Army Command and General Staff College, 1963), p. L1-12.

³Ibid., p. L1-3 and 4.

CHAPTER IX

ORGANIZATION

The organization for the attack of a city is characterized by increasing decentralization as the attack progresses. Operations must be in accordance with a detailed plan and carefully coordinated because of limited observation, the proximity of opposing forces, and the difficulty in maintaining direction within the city. Vehicular movement and radio communications are restricted by buildings and rubble.¹

Infantry, armor, artillery, and engineer units are formed into assault teams at company and platoon level. Assault teams are specially trained, equipped, and rehearsed for their mission. Armor is attached to the infantry.²

Artillery, which is attached to the division, is used in a general support role. Self propelled eight inch and one hundred fifty-five millimeter howitzers are alerted for individual employment in an assault fire role. The division reserve is motorized. Additional engineers are attached for the operation, and combat engineer vehicles and flame thrower tanks are manned and made available to the division. Armed helicopters may have some application.³

¹U.S.A., Headquarters, Department of the Army, FM 31-50, Combat in Fortified Areas and Towns (Washington 25, D.C.: U.S. Government Printing Office 1952), p. 53.

²Ibid., pp. 53, 78, 80, and change 2, p. 5.

³U.S.A., Command and General Staff College, "Manuscript 6430/4, Infantry Division Attack of Built-up Areas and Fortified Positions, Lesson Plan" (Fort Leavenworth, Kansas: U.S. Army Command and General Staff College, 1963), p. L1-12.

Chemical companies may provide smoke to conceal movements and screen assaults during the seizure of a foothold.⁴ Built-up areas can be effectively and cheaply neutralized with chemical or biological munitions.⁵

The Soviets consider the reinforced rifle battalion as the primary tactical unit in the attack of a city. Tanks, assault guns, and heavy artillery are in direct support of the battalion assault teams. Battalion assault teams include a troop reserve and a strong support element. The engineers move with the infantry to clear mines and boobytraps and perform demolitions.⁶

The Germans flew special engineer assault teams into Stalingrad during the 1942 battle. These teams eventually penetrated to the Volga at several points, and continued to advance through October of 1942. However, the defenders were never isolated from their supply bases on the east shore of the Volga, and the Soviet counterattack in November ended the attack phase of their operation.

⁴U.S.A., FM 31-50, p. 83.

⁵U.S.A., Headquarters, Department of the Army, FM 100-5, Field Service Regulations, Operations (Washington 25, D.C.: U.S. Government Printing Office, 1962), p. 90.

⁶DA Pamphlet 30-50-1, p. 42.

CHAPTER X

SUMMARY OF DOCTRINE

Soviet and United States doctrine agree on the general principles for the attack of a city, but disagree on a few secondary items. Both the Soviets and the Germans favor penetrations to seize key terrain within the city and which will divide the defenders. The Soviets use tanks during daylight hours to follow immediately behind and support the first line of infantry. They also recommend a night attack to gain access to the built-up area or infiltrate strongpoints. The Soviets stress preparations to repel counterattacks, which are expected immediately after the fall of a strong point.

The Soviets use two or three avenues of approach for a division.

All doctrines agree that combat in cities should be avoided and, at a minimum, postponed until the garrison is isolated.

The detailed summary of doctrine is contained in Part III of this paper and will not be repeated here.

PART III

PROPOSED DOCTRINE

Introduction

This doctrine is a synthesis of current U.S. Army doctrine, proposed changes to U.S. Army doctrine, and selected historical lessons. The emphasis and composition reflects conclusions drawn by the writer during the study of World War II historical examples.

Decision

The time and combat power required to isolate and clear a city varies with the accessibility of flank approaches to the city, the type of fortifications around the city, the quality and type of forces committed to the defense of the city, and the attitude of the population.

Major tasks may include (1) isolating the city, (2) penetrating outer defenses, (3) penetrating into the city and seizing key features, and (4) reduction of enemy-held sectors and strongpoints. The attack to isolate and encircle the city should go as deep as the available combat power will permit. Enemy breakout and reinforcement attempts should be anticipated.

Estimate

The unusual characteristics of the area of operations require special emphasis on the estimates and selection of key terrain. Special attention should be given to open areas which offer fields of fire for the defense

or avenues of approach for the offense. Bridges, road junctions, and features which limit enemy movement may also be key. Seizure of government buildings and public utilities will assist in controlling and providing minimum protection for the health of the population. Disciplinary measures may be required to prevent loss of control when units come in contact with the population and temptations of a large city.

Relative combat power is influenced by fortifications available to the defender, the attitude and military capabilities of the populace, and the practicality of using nuclear and CBR weapons. The defender has the advantage of interior lines of communication and good defensive positions until his flanks and rear are exposed. This advantage is nullified by the threefold extension of his lines and relative loss of mobility after the city is encircled.

Nuclear, chemical, or biological weapons offer the cheapest means of reducing a city, but the decision to use these weapons is dependent upon a prior political decision that their use is ethical and will be beneficial to national interests.

The threat to use nuclear weapons may render cities untenable, but it may also prevent the buildup of forces necessary to assault the city. The destruction caused by nuclear or conventional bombardment does not reduce the value of a city as an obstacle nor does it deprive the enemy of excellent defensive positions in the ruins. Subterranean systems offer protection from nuclear weapons, but are vulnerable to chemical and biological attack unless special protection is provided.

Plans and Preparations

Helicopters can be used to land assault teams on the top of buildings, to transport units to key features within the city, for reconnaissance, and

for fire support missions.

The fire support plan should include provisions for direct fire by medium and heavy caliber artillery to supplement infantry and engineer assault weapons. Massive air and artillery preparations will have detrimental effects on enemy combat efficiency, but must be followed quickly with ground assaults. The rubble from air and artillery bombardment provides excellent defensive positions.

Logistical considerations should include anticipated heavy artillery ammunition expenditures, provision of special items of equipment in time for troop training, and minimum support requirements for the civilian population.

Units should conduct training in the special techniques used for the assault of fortified and built-up areas and rehearse the actual operation whenever possible. Tactical organization provides for formation of battalion assault teams reinforced with tanks, engineers, chemical (smoke) units, and supported with direct fire from 155 millimeter and larger self-propelled artillery.

Conduct

Priority of operations during the conduct of the attack should be to defeat enemy attempts to relieve or reinforce the garrison and prevent breakouts. If a deep penetration is planned within the built-up area, forces should be provided to secure the flanks of the penetrating unit and destroy by-passed strongpoints.

The attack within the built-up area should be characterized by semi-independent actions of battalion and company combined arms teams. Progress is slow and combat teams should be leapfrogged frequently to maintain the momentum of the attack. Units normally mop up as they go, but provision should be

made for exploitation of an unexpected breach in the defense which permits the assault forces to seize key features within the depths of the city.

In summary, fighting in a city should be avoided if at all possible. Nuclear, chemical, or biological weapons offer the cheapest way to destroy a city. If a ground assault of a city is required, the following factors should be carefully evaluated:

- Size of force required to seize a strongly defended city.

- Necessity to isolate the city and defeat relief attacks.

- Selection of key terrain and objectives.

- Influence of paramilitary forces and a hostile population.

- Collection and dissemination of intelligence and aerial photography.

The attack on a city is conducted to turn the enemy force out of its prepared positions; or to destroy the defenders by isolating the city, restricting the garrison's movement and ability to react, and, finally, isolating and destroying enemy strongpoints.

APPENDIX I

CHRONOLOGY OF EVENTS DURING ATTACK ON PARIS

AUGUST 1944

The information in this appendix is a summary of major political events and decisions which affected the 5th Corps Commander during the battle for Paris. The material is taken from Blumenson's¹ chapter on the battle of Paris. Blumenson's material is verified in the 5th Corps History.²

List of Characters

Supreme Allied Commander, Europe	General Dwight D. Eisenhower
Head of French Government	Marshal Henri Petain
Chief of Free French Movement and Head of Provisional French Government	General Charles de Gaulle (recognized by Allied Powers prior to battle for Paris)
French Military Governor of Paris	General Pierre Joseph Koenig
Commander of 2d French Armored Division	General Jacques Philippe LeClerc
Commander 12th Army Group	General Omar N. Bradley
Commander U.S. First Army	Lieutenant General Courtney H. Hodges
Commander 5th Corps	Major General Leonard T. Gerow
Commander 4th U.S. Infantry Division	Major General Raymond O. Barton

¹Martin Blumenson, U.S. Army in World War II, European Theater of Operations, Vol: Breakout and Pursuit (Washington 25, D.C.: U.S. Government Printing Office, 1961), pp. 590 - 628.

²Edgar A. Wilkerson, V Corps Operations in the E.T.O. (publication date not listed).

Communications Zone Representative in Paris (COMZ-ETO U.S.A.)	Brigadier General Pleas B. Rogers
German Commander in Chief in the West	Generalfeldmarschall Guenther von Kluge
German Commander of Perimeter Defenses West and Southwest of Paris	Oberstleutnant Huberus von Aulock
German Commander of Paris Defenses	Generalleutnant Dietrich von Choltitz

Situation on 1 August 1944

Allies plan to by-pass Paris and await capitulation of isolated garrison. An estimated four thousand tones of supplies per day are required to meet minimum needs for the population of Paris. Allies desire to limit damage to Paris. Eisenhower does not desire to favor any one French political element. Hitler desires to hold the French capital. French urge SHAEF (Supreme Headquarters, Allied Expeditionary Force) to seize Paris on premise that he who holds Paris holds France.

Chronology of Events, August and September 1944

- 7 Aug 1944 Hitler names General Choltitz as Commanding General and Military Commander of Greater Paris.
- 14 Aug 1944 Commander of 2d French Armored Division, General Le Clerc, begins to request that the U.S. chain of command assign his unit the agreed upon mission of liberating Paris.
- 15 Aug 1944 General Kluge agrees that Paris should be defended by blocking approaches on outer ring.
- 16 Aug 1944 Eisenhower reconsiders plan to by-pass Paris, admits he may have to go into the city.
- 19 Aug 1944 Uncoordinated FFI (French Forces of the Interior) uprisings seize areas of Paris; General Choltitz agrees to armistice in exchange

for uninterrupted withdrawal. Choltitz hopes for conflict between French Communists and de Gaullists.

20 Aug 1944 German 348th Division ordered to Paris. Generalfeldmarschall Walter Model, new Chief of OB WEST and Army Group B, decides on alternate defense line north and east of Paris.

20-23 Aug Generaloberst Alfred Jodl of the Army High Command, then Hitler orders defense of Paris. Hitler states, "Paris must not fall into the hands of the enemy except as a field of ruin."

22 Aug 1944 Air drop of weapons and ammunition to FFI in Paris weathered out, then cancelled (withheld up until this time for political reasons).

22 Aug 1944 Bradley tells Le Clerc that 2d French Armored Division is to liberate Paris at once.

22 Aug 1944 Bradley and Hodges decide to send 5th Corps (2d French Armored and 4th U.S. Infantry Divisions) to assist FFI and accomplish other missions as necessary. Limitations on 5th Corps include:

1. No movement into Paris prior to expiration of FFI - German armistice.
2. No serious fight was to be accepted inside Paris.
3. No bombing or artillery on the city unless absolutely necessary.

22 Aug 1944 (evening) General Gerow orders General Le Clerc to begin marching immediately. If troops encountered strong resistance, they were to assume the defensive. No troops to cross the Versailles Palaiseau line prior to noon on 23 August.

- 23 Aug 1944 FFI leaders from Paris make appeal to U.S. commanders for immediate troop support. They claim FFI - German armistice expires at noon on 23 August. Eisenhower and Bradley order twenty-six thousand tons of supplies for civil relief, delivery to Paris to begin 27 August.
- 23 Aug (noon) General Le Clerc learns Germans have occupied blocking positions between his forces and Paris, decides to wait for the division main body to close and attack on morning of 24 August. Le Clerc's main effort crosses into the zone of the 4th Infantry Division in effort to by-pass enemy in Versailles and hit south flank of city. Move not coordinated. Fifth Corps artillery unable to support this attack.
- 24 Aug 1944 Le Clerc's secondary attack penetrates after four hour battle, reaches Seine River at Sevres. TAC Air grounded by poor weather. Le Clerc's main attack makes slow progress, still on outskirts of Paris at nightfall.
- 24 Aug 1944 General Gerow requests permission to send 4th Infantry Division into Paris; Bradley grants permission; Gerow orders Le Clerc and General Barton, 4th Division Commander, to assist one another to the maximum.
- 24 Aug (midnight) Small French task force of tanks and half tracks infiltrates to Hotel de Ville (just north of Notre Dame). Most of German defenders withdraw across the Seine.
- 25 Aug (noon) 12th Infantry of 4th Division arrives at Notre Dame cathedral in center of city.
- 25 Aug 1944 Barton attempts to coordinate troop dispositions with Le Clerc,

is rebuffed. Le Clerc accepts Choltitz's surrender in name of Provisional Government of France; surrender is advertised and nearly all German troops surrender. The 5th Corps takes over ten thousand prisoners.

The de Gaullists appear to have advantage in Paris.

25 Aug 1944 General Koening, French Military Governor of Paris, assumes responsibility without coordinating with General Gerow.

25 Aug 1944 General de Gaulle enters Paris.

26 Aug 1944 General de Gaulle organizes victory parade, invites Gerow to participate; Gerow declines, orders Le Clerc not to participate. Gerow actions based upon: knowledge of German units north, east, and southwest in immediate vicinity of Paris; fear of German air attack; danger of civil disorder and liberation hysteria among the troops; fear of German counterattack. Gerow declines to cut off combat service support of Le Clerc to force obedience. Hitler, after learning Paris is not destroyed, orders destruction of Paris (order not carried out). Le Clerc orders all individual arms taken up from his enlisted men to stop indiscriminate firing. Attack northeast continued by part of 2d French Armored Division. General de Gaulle requests and Eisenhower gives 2d French Armored Division to de Gaulle for occupation duty in Paris. Thus, Le Clerc is removed from Gerow's command. (2d French Armored returned to combat on 8 September).

27 Aug 1944 The 4th Infantry Division continues attack northeast. All corps objectives northcoast of Paris reached. General de Gaulle asks Eisenhower for two U.S. Divisions to establish his position in Paris (assume this means political position). FFI begins to

degenerate, must be controlled.

- 28 Aug 1944 General Gerow, 5th Corps Commander, formally turns control of Paris over to General Koenig, who states he has had control since 25 August. Koenig requests SHAEF furnish uniforms and equipment for fifteen thousand men to be used in reorganizing FFI into regular army.
- 29 Aug 1944 Paris cleared of Germans. Elements of U.S. 28th Infantry "parade" through Paris on way to assembly areas for attack northeast of city. General de Gaulle inactivates and dissolves FFI; power given to military regions; FFI personnel subject to draft. Measures consolidate de Gaulle's power. Half the daily relief supplies and eight hundred tons of coal per day are moved at the expense of the military effort. (A short time later U.S. armies came to a halt on the German border.)
- Early Sep COMZ-ETOUSA Headquarters displaces from Cotentin Peninsula to Paris at an inopportune time and apparently without Eisenhower's knowledge.
- 8 Sep 1944 The 2d French Armored Division (Le Clerc) rejoins 3d Army.

APPENDIX II

COMMENTS ON THE GERMAN ARMY'S CONCEPT OF THE ROLE OF CITIES IN MODERN WARFARE¹

To the best of his knowledge, Major Gassler states that the current German doctrine is to by-pass cities whenever this is allowed by the tactical situation. If the enemy concentrates in a city, he gives up the initiative and takes the risk of being isolated and destroyed at a later time. There are two tactics which can be used in the attack of a built-up area. The first is a slow and systematic street by street advance, the second is a penetration or multiple penetrations to divide the defenders and permit the attacker to defeat them in detail. The German doctrine prefers to divide the enemy and defeat him in detail.

Stalingrad is an example of a city which could not be by-passed by the Russians because they could not permit the German Sixth Army to exist in their rear.

The tactical importance of cities has diminished in the last twenty years. Modern tracked vehicles can by-pass the road centers, and rail centers are quickly knocked out from the air. Still, in Russia, we avoided having major forces in the cities, but sought protection from the elements in the built-up areas during the winter, and were forced to use the roads which passed through the cities in the spring and fall.

¹ Notes of interview with Major Gunter Gassler, Army of Federal Republic of Germany, 5 February 1964, Fort Leavenworth, Kansas, as compiled by Major Edward M. Pierce.

Modern equipment has reduced the importance of cities and rivers as obstacles. The only real obstacles to modern vehicles are major mountain ranges.

The plan to attack a city will be dependent upon the enemy dispositions and activities. Reconnaissance must be continuous, and the attack pressed to prevent the enemy from repositioning his forces. The city must be one hundred per cent isolated on the ground and in the air.

The Germans did not consider the use of tanks in a city as the best use of the desirable characteristics of the tank. They developed assault guns which were more suitable for the support of infantry during fighting in cities.

German military leaders thought that Soviet Russia would probably have collapsed under the conditions of the summer of 1942 if the Germans had directed their major effort towards Moscow at that time instead of attempting to seize economic objectives in the south. The military wanted Moscow and its area as a political and communications center. Moscow controlled the communications to the north, south, and east and was considered a major backbone of the Russian spirit to continue fighting.

Some Germans feel that the Soviets will not use high yield (in the megaton category) nuclear weapons in event of an attack through the Ruhr because they will need the industrial facilities to provide them with an additional industrial base for future attacks on the Free World. They want the Ruhr intact for political and strategic reasons.

BIBLIOGRAPHY

PRIMARY SOURCES

Public Documents

- U.S. Department of the Army. Field Manual 31-50, Combat in Fortified Areas and Towns. Washington 25, D.C.: U.S. Government Printing Office, 1952.
- U.S. Department of the Army. Field Manual 61-100, The Division. Washington 25, D.C.: U.S. Government Printing Office, 1962.
- U.S. Department of the Army. Field Manual 100-5, Field Service Regulations, Operations. Washington 25, D.C.: U.S. Government Printing Office, 1962.
- U.S. Department of the Army. Field Manual 27-10, The Law of Land Warfare. Washington 25, D.C.: U.S. Government Printing Office, 1956.

Unpublished Materials

- Manty, Willy. "Manuscript B-751, First Army (7 Nov - 4 Dec 1944)." Historical Division, Headquarters, U.S. Army, Europe, 16 May 1947.
- Schack, Friedrich August. "Manuscript B-816, LXXXI Corps (4-21 September 1944)." Historical Division, Headquarters, U.S. Army, Europe, 4 April 1948.
- U.S. Army. "After Action Report, August 1944." Headquarters, 5th Corps, August 1944.
- U.S. Army. "After Action Reports, August and September 1944." Headquarters, 8th Corps, 1944.
- U.S. Army. "After Action Report, M-1 Operations." Headquarters, 14th Corps, 29 July 1945.
- U.S. Army. "After Action Report, September and October 1944." Headquarters, 30th Infantry Division, October 1944.
- U.S. Army Command and General Staff College. "Manuscript 6430/4, Infantry Division Attack of Built-up Areas and Fortified Positions, Lesson Plan." Fort Leavenworth, Kansas: U.S. Army Command and General Staff College, 1962.

- U.S. Army. "Field Order 10." Headquarters, 20th Corps, 1944.
- U.S. Army. "Field Order 11." Headquarters, 8th Corps, 22 August 1944.
- U.S. Army. "Field Order 12." Headquarters, 20th Corps, 1944.
- U.S. Army. "Field Order 15." Headquarters, 8th Corps, March 1945.
- U.S. Army Infantry School. Field Manual 31-50, Combat in Fortified and Built-up Areas. (Draft Manuscript.) Fort Benning, Georgia: U.S. Army Infantry School, November 1962.
- U.S. Army. "Japanese Defense of Cities as Exemplified by the Battle of Manila." Headquarters, 14th Corps, 1 July 1945.
- U.S. Army. "Operation Memorandum 101." Headquarters, 7th Corps, October 1944.
- U.S. Army. "Operations I, Brest-Crozon." Headquarters, Ninth Army, September 1944.
- U.S. Army. "The Reduction of Fortress Metz." Headquarters, 20th Corps, 1944.
- U.S. Army. "Report After Combat, 31 July 1944 to 31 August 1944." Headquarters, 15th Corps, 1944.
- U.S. Army. "Report of Breaching the Siegfried Line and the Capture of Aachen." Headquarters, 1st Infantry Division, 7 November 1944.
- Willemer, Wilhelm. "Manuscript P-136, The German Defense of Berlin." Historical Division, Headquarters, U.S. Army, Europe, 4 April 1953.

Other Sources

- Encyclopaedia Britannica, 1961 Edition, Volumes 5, 6, and 23.
- Federal Republic of Germany. Interview with Major Gunter Gassler, student at the U.S.A. Command and General Staff College, Fort Leavenworth, Kansas. 5 February 1964.
- Haislip, Wade H. "Corps Operations." (taped speech) Fort Leavenworth, Kansas: U.S.A. Command and General Staff College, 18 April 1952.
- Truman, Harry S. "Graduation Address, Kansas City HSAR, 5039 ARSU." (taped speech) Fort Leavenworth, Kansas: U.S.A. Command and General Staff College, 15 February 1964.
- U.S. Air Force. Personal interview with Major James G. Randolph, fighter pilot. Fort Leavenworth, Kansas: U.S.A. Command and General Staff College, 6 February 1964.

SECONDARY SOURCES

Public Documents

Appelmann, Roy E., et al. U.S. Army in World War II, The War in the Pacific
Vol.: Okinawa: The Last Battle. Washington 25, D.C.: U.S. Government
Printing Office, 1948.

Blumenson, Martin. United States Army in World War II. The European Theater
of Operations. Vol. 6: Breakout and Pursuit. Washington 25, D.C.:
U.S. Government Printing Office, 1961.

Blumenson, Martin, et al. Command Decisions. Edited by Kent Robert Green-
field. Washington 25, D.C.: U.S. Government Printing Office, 1960.

Cole, Hugh Marshal. United States Army in World War II. The European Theater
of Operations. Vol. 3: The Lorraine Campaign. Washington 25, D.C.:
U.S. Government Printing Office, 1961.

Harrison, Gordon A. United States Army in World War II, The European Theater
of Operations. Vol.: Cross-Channel Attack. Washington 25, D.C.:
U.S. Government Printing Office, 1951.

MacDonald, Charles B. United States Army in World War II, European Theater
of Operations. Vol.: The Siegfried Line Campaign. Washington 25, D.C.:
U.S. Government Printing Office, 1963.

Smith, Robert R. United States Army in World War II, The War in the Pacific.
Vol.: Triumph in the Philippines. Washington 25, D.C.: U.S.
Government Printing Office, 1963.

U.S. Department of the Army. Pamphlet No. 30-50-1, Handbook on the Soviet
Army. Washington 25, D.C.: U.S. Government Printing Office,
31 July 1958.

U.S. Department of the Army. Utah Beach to Cherbourg (6 June - 27 June 1944).
Washington 25, D.C.: U.S. Government Printing Office, 1947.

United States Military Academy. The War in Western Europe, Part 2. West
Point, New York: U.S. Military Academy Adjutant General, 1949.

Books

Fuerman, George M. and Cranz, F. Edward. Ninety-Fifth Infantry Division
History 1918-1946. Atlanta, Georgia: Albert Love Enterprises,
approximate date 1946.

Schroter, Heinz. Stalingrad. Translated by Constantine Fitzgibbon. New
York: E. P. Dutton & Company Inc., 1958.

Articles and Periodicals

"How the City of Yulhnov was Captured." Military Review, January 1943.
Translated from Krasnaya Zvezda, 6 March 1942.

Pirich, Herman. "Struggle for Kharkov and the Dnieper, February - March 1943." Translated by Command and General Staff College, Military Review, December 1943.

"River Flotilla Operations on the Berezina." Military Review, July 1945.
Translated from Krasnyi Flot, 29 November 1944.

Shishkin, S. "The Vitebsk Operations." Military Review, July 1945.
Translated from Krasnaya Zvezda, 25 October 1944.

Unpublished Materials

"From D+1 to D+105, The Story of the 2d Infantry Division." Paris, approximately 1944.

"Operations I, Brest-Crozon." U.S. Ninth Army, September 1944.

Wilkerson, Edgar A. V Corps Operations in the ETO. (Printed and bound, but no publication data available. Item filed in Archives, U.S.A. Command and General Staff College Library.)